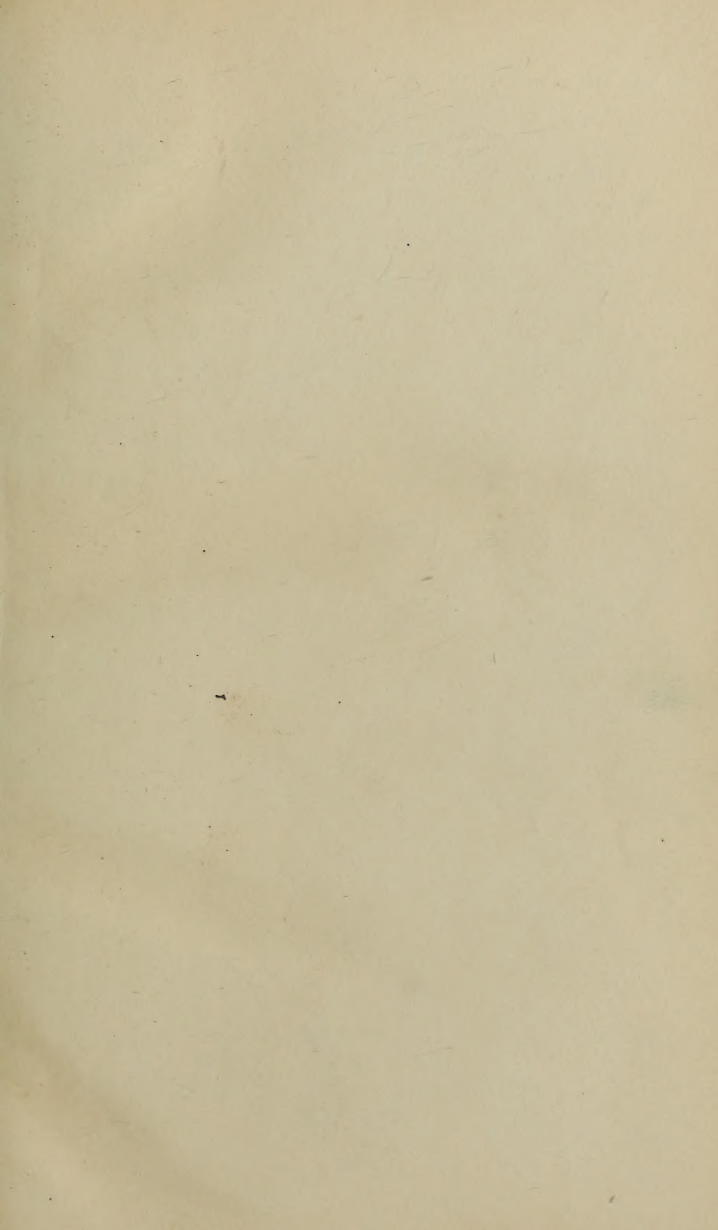


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HISTORY

OF THE

BERWICKSHIRE

NATURALISTS' CLUB

INSTITUTED SEPTEMBER 22, 1831

"MARE ET TELLUS, ET, QUOD TEGIT OMNIA, CÆLUM"

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HISTORY OF THE BERWICKSHIRE NATURALISTS' CLUB.

CONTENTS OF VOL. XXVI.

PART I.—1926.

	PAGE
1. Annual Address by Rev. HENRY PATON, M.A., delivered 13th October 1926	1
2. Two Hundred Years Ago	15
3. Reports of Meetings for 1926. By J. H. CRAW, F.S.A.SCOT. :—	
(1) STOBO AND DAWYCK: 16th June	16
(1A) CHEVIOT: 8th July	24
(2) EDLINGHAM: 22nd July (Plate I)	25
(3) CORSBIE AND LEGERWOOD: 18th August (Plate II)	30
(4) DUNSTANBURGH: 9th September (Plate III)	33
(5) OXNAM AND THE ROMAN ROAD: 23rd September (Plates IV, V)	37
(6) BERWICK: 13th October	44
4. A Kirknewton Graveslab. By J. H. CRAW, F.S.A.SCOT.	50
5. A Scottish Border Library. By J. LINDSAY HILSON	51
6. A Link with the 'Forty-five	67
7. The Institution of Mr Andrew Stevenson. The Kirk of Dunbar, 1639. By WILLIAM DOUGLAS	68
8. The Lairds of Cockpen. By Rev. JAMES FLEMING LEISHMAN, M.A.	74
9. The Monumental Effigies of Berwickshire. By J. H. CRAW, F.S.A.SCOT. (Plates VI to IX)	76
10. The Mosses and Hepatics of Berwickshire and North Northumberland. By J. B. DUNCAN	84
11. In Memoriam. John Ferguson, F.S.A.Scot.	87

12. Note of Members	93
13. Meteorological Observations in Berwickshire during 1926. By Rev. A. E. SWINTON, M.A., F.R.MET.SOC.	94
14. Account of Rainfall in Berwickshire during 1926. By J. H. CRAW, F.S.A.SCOT., F.R.MET.SOC.	95
15. Treasurer's Financial Statement for Year ending 30th September 1926	96

PART II.—1927.

1. Annual Address by Captain FULLARTON JAMES, delivered 12th October 1927	97
2. Reports of Meetings for 1927. By J. H. CRAW, F.S.A.SCOT. :—	
(1) ILBERTON AND THREESTONEBURN : 26th May	111
(2) THE UPPER WHITADDER : 23rd June	114
(3) BOTHAL, NEWMINSTER, AND MITFORD : 21st July	118
(4) WARKWORTH : 17th August	121
(5) HUME AND SMAILHOLM : 15th September	124
(6) BERWICK : 12th October (Plate X)	128
3. The Lepidoptera of Northumberland and the Eastern Borders. By GEORGE BOLAM	135
4. Notes on the Insects of Berwickshire. II. Sawflies. By JAMES CLARK, M.A., D.SC., A.R.C.S.	228
5. On an Heraldic Panel at Roseden. By JAMES HEWAT CRAW, F.S.A.SCOT.	244
6. The Mosses and Hepatics of Berwickshire and North Northumber- land. By J. B. DUNCAN	246
7. The Meeting of the British Association for the Advancement of Science at Oxford, in 1926. By GEORGE GREY BUTLER, M.A.	248
8. Report of Meeting of the British Association for the Advancement of Science. Leeds 1927. By JOHN BISHOP	256
9. Appointment of Secretary	265
10. Berwickshire Naturalists' Club Library	265
11. A Phase of Border History. By J. LINDSAY HILSON	266
12. John Crawford Hodgson, M.A. By EDWARD THEW	271
13. Meteorological Observations in Berwickshire during 1927. By Rev. A. E. SWINTON, M.A., F.R.MET.SOC.	282

CONTENTS

v

14. Account of Rainfall in Berwickshire during 1927. By JAMES HEWAT CRAW, F.S.A.SCOT., F.R.MET.SOC.	PAGE 283
15. Treasurer's Financial Statement for Year ending 30th September 1927	284

PART III.—1928.

1. Annual Address by Major CHARLES H. SCOTT PLUMMER, delivered 3rd October 1928	285
2. Reports of Meetings for 1928 :—	
(1) THE FOUL FORDS : 30th May	301
(2) THE BASS ROCK : 28th June	304
(3) LOCH SKENE : 25th July	306
(4) FORD AND ETAL : August	308
(5) PRENDWICK : 12th September	309
(6) BERWICK : 3rd October	312
3. The Story of the Foul Ford : A Lammermoor Tragedy. By THOMAS GIBSON, J.P.	318
4. An Australian Pioneer	322
5. The Lepidoptera of Northumberland and the Eastern Borders. By GEORGE BOLAM	323
6. The Black Dykes of Berwickshire. By J. H. CRAW, F.S.A.SCOT. (Map of Berwickshire)	359
7. The Halls of Haughead. By Rev. J. F. LEISHMAN, M.A. (Plate XI)	376
8. Report on British Association Meeting at Glasgow. By JOHN BISHOP	379
9. Half a Century of Merse Weather. By J. H. CRAW, F.S.A.SCOT., F.R.MET.SOC. (Rainfall and Temperature Charts)	383
10. Two Hundred Years Ago	385
11. Obituaries :—	
(1) George Muirhead. By GEORGE BOLAM	386
(2) Henry Rutherford. By Sir GEORGE DOUGLAS, BART.	390
(3) Rev. R. C. Inglis	393
(4) Howard Pease. By R. C. BOSANQUET	393
12. Two Hundred Years Ago	396

	PAGE
13. Meteorological Observations in Berwickshire during 1928. By Rev. A. E. SWINTON, M.A., F.R.MET.SOC.	397
14. Account of Rainfall in Berwickshire during 1928. By J. H. CRAW. F.S.A.SCOT., F.R.MET.SOC.	398
15. Treasurer's Statement for the Year ending 30th September 1928 .	399
16. Berwickshire Naturalists' Club Rules and Regulations (Revised 1925)	400
17. List of Members, 30th September 1928	403
INDEX	414

ILLUSTRATIONS

PART I.—1926.

Graveslab in Stobo Church	<i>page</i>	19
Gravestone at Stobo	„	20
Graveslabs, Edlingham Church	„	28
I. Edlingham Castle :		
A. From the south-east	<i>to face page</i>	28
B. From the north-east	„	28
Heraldic Panel, Edlingham Church	<i>page</i>	29
II. Corsbie Tower :		
From the south-east	<i>to face page</i>	32
From the west	„	32
III. The Saddle Rock, Dunstanburgh	„	36
IV. Roman Fort, Cappuck	„	39
Jougs, Oxnam Church	<i>page</i>	41
Cross in Churchyard, Oxnam	„	41
Cross in Manse Garden and Mason's Mark on Stone at Crag Tower	„	41
V. Roman Camp at Pennymuir	<i>to face page</i>	42
VI. Effigy of Prioress, Abbey St Bathans	„	77
„ „ „	<i>page</i>	78
VII. Effigies at St Helens	<i>to face page</i>	78
VIII. Effigies of Patrick Home and his Wife, Edrom	„	79
Effigies in Edrom Church	<i>page</i>	80
Inscription on Sarcophagus	„	81
IX. Effigies of Patrick Home and his Wife, Edrom	<i>to face page</i>	83
The Swinton Effigy	„	83
Effigy in Swinton Church	<i>page</i>	83

ILLUSTRATIONS

PART II.—1927.

Stone Circle at Threestoneburn	<i>page</i>	113
X. Timbers of Old Wooden Bridge, Berwick	<i>to face page</i>	134
Heraldic Panel at Roseden	<i>page</i>	244

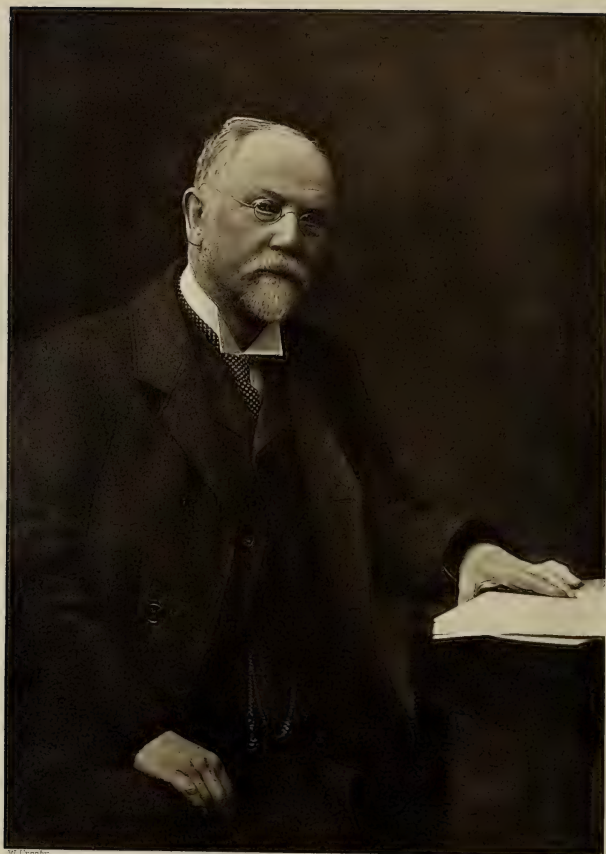
PART III.—1928.

Etal and Ford Castles, Plans and Drawing	<i>to face page</i>	309
XI. Ruins of Haughead House	<i>..</i>	378
Weather Charts	<i>..</i>	384









W. Cronk

Edinburgh

Yours very sincerely
J. A. Ferguson

HISTORY OF THE BERWICKSHIRE NATURALISTS' CLUB.

CONTENTS OF VOL. XXVI.—PART I.

1926.

	PAGE
1. Annual Address by Rev. HENRY PATON, M.A., delivered 13th October 1926	1
2. Two Hundred Years Ago	15
3. Reports of Meetings for 1926. By J. H. CRAW, F.S.A.SCOT.:—	
(1) STOBO AND DAWYCK: 16th June	16
(1A) CHEVIOT: 8th July	24
(2) EDLINGHAM: 22nd July (Plate I)	25
(3) CORSBIE AND LEGERWOOD: 18th August (Plate II)	30
(4) DUNSTANBURGH: 9th September (Plate III)	33
(5) OXNAM AND THE ROMAN ROAD: 23rd September (Plates IV, V)	37
(6) BERWICK: 13th October	44
4. A Kirknewton Grave-Slab. By J. H. CRAW, F.S.A.SCOT.	50
5. A Scottish Border Library. By J. LINDSAY HILSON	51
6. A Link with the 'Forty-five	67
7. The Institution of Mr Andrew Stevenson. The Kirk of Dunbar, 1639. By WILLIAM DOUGLAS	68
8. The Lairds of Cockpen. By Rev. JAMES FLEMING LEISHMAN, M.A.	74
9. The Monumental Effigies of Berwickshire. By J. H. CRAW, F.S.A.SCOT. (Plates VI to IX)	76
10. The Mosses and Hepatics of Berwickshire and North Northumber- land. By J. B. DUNCAN	84
11. In Memoriam. John Ferguson, F.S.A.Scot.	87

CONTENTS.

	PAGE
12. Note of Members	93
13. Meteorological Observations in Berwickshire during 1926. By Rev. A. E. SWINTON, M.A., F.R.MET.SOC.	94
14. Account of Rainfall in Berwickshire during 1926. By J. H. CRAW, F.S.A.SCOT.	95
15. Treasurer's Financial Statement for Year ending 30th September 1926	96



PROCEEDINGS
OF THE
BERWICKSHIRE NATURALISTS' CLUB

*Address delivered to the Berwickshire Naturalists' Club
at Berwick, 13th October 1926. By Rev. HENRY
PATON, M.A., Peebles.*

My first duty is to return thanks for your kindness in electing me as your President for the past year. It has been a pleasant experience, and the courtesy and forbearance extended to me in the discharge of the duties of the presidentship have lightened and cheered me in its labours. Labours! did I say? These all fall on the shoulders of our worthy and energetic Secretary, Mr Craw, who never fails to see that everything is made plain and easy not only to the President, but to every member of the Club, and hence it is that our meetings always leave us with most pleasant memories.

There is ever one shadow in the Presidential Address—the remembrance of those who have passed over from us during the year. They are Mr Richard A. J. Hewat of Netherbyres, Mr David W. B. Tait of Langrigg, Mr John Wylie, Duns, Dr James Drummond, Hawick, and Mr John Ferguson of Duns, in the last of whom we have lost not only an old member and ex-President, but a gentleman whose antiquarian researches and scientific attainments enabled him to enrich the Club's *History* with many excellent contributions. He was indeed

one of the "mighties" of our Club, and will be greatly missed. He was one of those who welcomed me when I first entered the Club, and of his hospitable kindness and urbanity I had unbroken experience. His keen interest and concern for the Club's welfare was a stimulus to us all, and will, I trust, still be so to those who are following after.

This year the annals of our Society are distinguished by our adoption of a Badge. It displays the leaf of the wood sorrel, which was a great favourite with the founder of the Club, Dr George Johnstone. Had there been room on the small token it might also have contained the initials of our Club, and even its motto—*Mare et Tellus et quod tegit omnia Cælum*. This motto strikes me as one which is most comprehensive and ambitious. More we could not have, yet less would not suffice, for it is in every portion of this threefold realm that we find scope for our powers of observation and food for our wonder and delight. It is a motto which covers the orbit of the activities of naturalists universally, and affirms our own claim to share in all, even though we more specially limit our particular sphere of operations to Berwickshire and the neighbouring counties, and endeavour by their exploitation to add our quota to the universal store of knowledge. This very small portion of the vast area comprised in our motto has been assiduously cultivated by the Club for nearly one hundred years, and we may justly take credit for the greatly increased knowledge of the natural history of the district which now prevails through the valuable medium of its *History*, which we have reason to believe is as much prized by fellow-workers in other kindred societies as by ourselves. The motto suggested to me, as a subject for this Address, some remarks in the nature merely of a bird's-eye view of our field of operations as naturalists in this tripartite division, and a corollary.

Mare.—Bounded as our territory is on one side by

a portion of the North Sea (or, as it used to be known, the German Ocean, but which I have seen better named on one map as the British Sea), we have a share in its marine riches. How impressive the sea is in its immensity, especially when we realise that were all the mountains of the earth levelled and the sea's depressions elevated to form a plain surface, an hydrosphere would be formed around the earth about two miles in depth. We, too, can know something of its overwhelming potency when it is enraged. But it is not with these aspects we are immediately concerned, nor yet with the sea as used for purposes of commerce. Rather are we interested in its composition, its curbing sands, its living denizens of all kinds. Thanks to the *Challenger* Expedition of 1872-1876, our knowledge of its physics and chemistry, the nature of the sea-bottom with its terrigenous and pelagic deposits, its algæ and botany, and its simple and complex zoology, need no longer be restricted; and it is the happy privilege of our Club to have in its Library, and accessible to all its members, the forty-four volumes which comprise the Report of the Scientific Results of the Voyage of the *Challenger*. The zoology of the sea alone occupies thirty-five of these large tomes, and the beautiful illustrations present to the eye, as the descriptions do to the understanding, the infinite variety and rich profusion of those marvels of Divine wisdom and power therein displayed. The seaweed and other flora of the Berwickshire shore attracted the interest of one of our members, Mr Edward A. L. Batters, some years ago, and he contributed lists of them to the *History* of the Club; and in a paper by Mr George Bolam on the Fishes of Northumberland and the Eastern Borders descriptions will be found of many of those which frequent the coasts of Berwick and Northumberland. Naturally he has something to say of the salmon for which Berwick has been so long famous and of which in former days we used always to have a

sample on our Club dinner tables. Its disappearance, we hope, does not mean that Berwick's fame in that respect has also departed.

Tellus.—But the Club is chiefly devoted to the exploitation of its *terra firma*—the *Tellus* of our motto. Here, indeed, wherever we turn we find an inexhaustible field for investigation and research. Beneath our feet nature's carpet—on which for the most part we walk unheedingly—is alive with both botanical and zoological creations, all of which are perfect organisms, energising according to their own special object in life and the laws of that life bestowed on them by their Creator. Many of these are animalcular and almost invisible to the human eye. The moss on which we love to tread because of its softness is a living thing with roots, stem, leaves, and organs, male and female, for reproduction. There are said to be some three thousand species of moss, and of those indigenous to this locality Dr Hardy compiled a list in 1868, which in respect of Northumberland was added to in 1905 by Mr Dixon, and is now brought down to date by our Club Librarian, Mr J. B. Duncan. Akin to the mosses are the lichens which grow as parasites on trees, rocks and stones, and elsewhere, beautiful in their structure and colourings, and of which one distinguished investigator says that they are not only plants but rather colonies of hundreds and thousands of individuals among which one dominates while the rest in perpetual captivity prepare the nutriment for themselves and their master. This master is a fungus, a parasite which is accustomed to live upon others' work; its slaves are green algæ which it has sought out or got hold of and compelled into its service. It surrounds them as a spider does its prey with a fibrous net of many meshes which is gradually converted into an impenetrable covering; but while the spider sucks its prey and leaves it dead, the fungus incites the algæ found in its net to more rapid activity and more vigorous increase. What

a number and variety also are there of grasses, of which if we include cereals and pasture forms there are known to be over three thousand kinds throughout the world. Then as we ascend, so to speak, in display, we come to the more gorgeous flowering plants, and so on to shrubs and bushes and stately trees, of many of which, time and again, notice has been taken in our *Club History* and there is still room for more. One example is a paper on the Snowdrop given by Mr Boyd in his Presidential Address in 1905. Let this mere mention suffice for our tellurian flora; only would we remark in passing one feature in plant life which was brought to notice and demonstrated by an Indian scientist quite recently, viz. that the circulation of the sap through their veins is similar to that of the blood in our own, and that like ourselves they possess both sensory and motor nerves, the latter ten times more swift than the former, and functioning to a similar end.

The animal life in our tellurian sphere, ranging from the animalcular to the gigantic, is a most attractive part of our study, and in its extent and variety is practically beyond computation. Taking entomology alone—beetles, moths, and butterflies—it is estimated that there may be close upon a million species. And just to single out the butterflies, think of their exquisite plumage and wonderful structure and evolution, and that their eye contains no fewer than five thousand lenses with fifty thousand attendant nerves. The eye of a glow-worm was used a short time ago instead of a lens, and with success, for the taking of a photograph. Was it not Pliny who remarked, while contemplating the wonders of insect life: "In those beings so minute and, as it were, such nonentities what wisdom is displayed, what power, what unfathomable perfection!" Our local Lepidoptera has frequently engaged the attention of the members of the Club, and lists of their varieties with other references to them are not wanting in our *History*. The bees, wasps, and ants

to be found in the neighbourhood were recently sketched out for us by Dr James Clark at the instigation, I believe, of Dr M'Conachie; and many other forms of insect life with their peculiarities have been chronicled. So have those of our creeping and four-footed fauna, small and large, wild and tame, the fox, the hare, the rabbit, the badger, the otter, and other creatures which it would only be longsome and tedious to name.

Then there are the birds which belong, one may say, alike to the marine, the tellurian, and the celestial spheres of our quest, and form a section so immense and so interesting in variousness and attractiveness that it can be no matter of wonder that they have commanded a large share of the Club's attention. Its *History* is replete with the observations made of our feathered inhabitants, and in passing I should just like to recall the fine Presidential Address of Mr James Smail in 1899, the most interesting description of the ducks and waterfowl at Fallodon by Viscount Grey in 1921, and the instructive accounts of their experiences of bird life so frequently given to us by Mr George Bolam, Dr M'Conachie, and others.

There still remains what is perhaps the feature of the tellurian sphere which commands the largest share of the Club's attention, at least when in its social capacity: Man and his works, the castles, towers, and houses he has built, the churches he has erected and adorned, the fights he has fought, the families he has reared, his old camps and tumuli, or, in a word, the history and antiquities of the shire. Hence it is that palæontology, folklore, and genealogy add increased stimuli to our expeditions and gatherings and well repay our enterprise. And has not our esteemed Secretary among all his other good works gone through our local graveyards, and with great labour and thoroughness placed within our ken all that can be gleaned of our local sepulchral lore and customs of a bygone day? And finally there is the terrene itself with

all its peculiar features, its place-names, its geology, geography, and topography, in all of which we continually find sources of pleasant and profitable investigation.

Cælum is the third sphere named in our motto, *Quod tegit omnia Cælum*. "When I consider thy heavens, the work of thy fingers, the moon and the stars which thou hast ordained," says the Psalmist. There belong to nature in this sphere, apart from its winged inhabitants, many things which ask for our consideration, such as the air we breathe and in which we live, the rain which refreshes the earth and makes it fertile, the sun whose light and genial heat are indispensable, light itself and the darkness, those glistening orbs which adorn heaven's vast expanse, the snow, the hail, and the frost, the vaporous clouds which act so wonderful a part in the mighty distillation processes which supply fresh water to man and beast, and not only so, but which, although at times they are as a mourning shroud in the sky, are yet anon the means in the rising and setting rays of the sun of presenting to us the glories as of the realms beyond, and sometimes so overpowering in their beauty and splendour as to compel from even a Voltaire an adoring confession of the reality of God. Then there are the winds, sometimes a zephyr breath and at others a raging terrific tornado. So, too, the magnetic and electric elements in the heavens with their terrifying and destructive lightnings and their mighty thunderings which likewise often, though from a different emotion, remind us of that Power which controls and deals with all creatures not as they may desire, but as He alone wills. For all the celestial phenomena are entirely beyond the scope of human influence, impressing upon us that beyond physics there is the metaphysic, beyond the natural the supernatural.

Could our physical or even mental faculties adequately pierce the Empyrean we might hope to unravel the mystery which envelops all nature, a mystery with

which we are continually obsessed, compelling us to question with ourselves and with each other as to the whence, the why, and the whither of things. Man has laboured throughout the ages to solve the problem of origins and destinies. Science, as represented by the magicians of Egypt, the wise men of Assyria, of Chaldea, of Greece and of Rome, has essayed it of old just as our learned associations of Britain, America, France, Germany, and other lands are still striving to do to-day. And is it not humiliating to human intelligence that it is yet as far, if not farther, from the solution than ever? Just listen to what Sir Oliver Lodge had to say at the recent meeting of the British Association in Oxford. "Science," he said, "gave answers to some questions, but the more they answered the more questions remained unanswered. The motto for a scientific body was a note of interrogation. We are wondering where we are, whither we are going, whence we came. We are up against mystery continually. The universe is still shrouded in mystery. We are probing the unknown and finding more and more of it. What is infinity? It is space without limit. What else is possible? What is time? Was there a beginning? Will there be an end? Must it not be an eternity?" And Sir Oliver entertains no prospect that our men of science will do any better in the future than in the past. There have been two revolutions in science, he says, since 1894, and from what he sees he predicts a third to be approaching which will revolutionise our aspect of the universe once more and beyond all previous scope, so that we shall then be in the position of islanders or savages coming into contact for the first time with a higher race of white men, and learning that we were ignorant of the possibilities of humanity and are as yet as nothing in the hierarchy of existence. What a sad, yet true, picture of the achievements of science in the mysterious field of origins and destinies!

Huxley defined science as nothing but trained and organised common sense, and natural science as the result of observation and experiment, requiring firstly the ascertaining of facts ; secondly, experiment ; and thirdly, conclusions from these supplemented by imagination—and this is an excellent compound if care be exercised in the admixture of the last-named ingredient. Imagination is very helpful when used lawfully in the formation of hypotheses, along the lines of which we may experiment for the ascertainment of possible facts, but unless these facts clearly emerge, the experiment has so far failed. Imagination is not science ; but the unfortunate thing is that in this particular quest imagination is palmed off upon the public as if it were science by many who ought to know better. Imagination run riot is a dangerous thing, and when in the early days of the world's history it became so evil that it exerted itself to banish God out of His universe, it brought down upon mankind the Divine vengeance in the Noachian flood. There is nothing wrong with the genuine scientific spirit, for it is honestly concerned to get at the truth and will be satisfied with nothing else, and no one can deny the immense addition that such scientific research has made to human knowledge by its investigations, analyses, and classifications in every department of nature, nor can we ever be grateful enough for the benefits it has conferred ; but when we get too much of the ravings of mere imagination in our compound we must at once counteract it by the application of a stronger dose of common sense.

In all its endeavours to solve the mysteries of whence, why, and whither science has proved a dismal failure. Its one and only solution has been, as it still is, a theory of spontaneous evolution, and for thousands of years with much sophistry and not a little impudence it has striven to force this theory upon mankind. This theory of evolution is not a new discovery, as some of our twentieth-century professors of science would have us

believe. Neither it, nor the "origin of species," nor the "survival of the fittest" originated with Darwin or those associated with him. To go no farther back, we find that the pre-Socratic Greeks when they discussed among themselves the question, What is the stuff of which everything around us is made? just gave the replies which obtain in our modern theories of biology. Thales gave it as his opinion that water is the stuff of which everything is made; and at Oxford a few weeks ago it was considered a very important proposition that, so far as living creatures are concerned, life is exhibited only in aqueous systems. Anaximander of Miletus forestalled Spencer when he taught that the primary stuff is a "boundless something" out of which the things we perceive by our senses come in a passing existence and return to this "boundless something" again, a "boundless something" that is going on eternally. Compare this with the Spencerian theory, "a primitive homogeneous mass passing in endless cycles from the imperceptible to the perceptible, back again from the perceptible to the imperceptible, and from indeterminate uniformity to determinate multiformity." Well, what will our common sense make of either of these? Then Anaximander also taught that man must have descended from beings of different physiological habits than they now possessed, but he suggested that it was from sharks (not monkeys). Empedocles had his own ideas on the subject, and gave out that mental forces such as love and hate or strife, or the forces of attraction and repulsion, were the influences in the formation of species, and in the evolution which he visaged the earliest organisms were ill-constructed composites, such as oxen with heads of men, the most of which early products perished for want of proper adaptation. The better adapted were able to survive and leave offspring. The first vertebrate was an animal which happened to break its back in trying to turn round. And so Empedocles anticipated both

Darwin and Wallace and Lamarck. There is nothing new under the sun. Aristotle, however, would have none of their evolutionary theories because he could find no evidence for the mutability of organic types. Facts, he argued, were definitely against the view that species are other than fixed constants in nature, and to treat them as anything else would be to base the explanation of natural processes upon unverifiable hypotheses about a supposed prehistoric age in which natural conditions were of an unknown kind, and such mere appeals to the possibilities of the entirely unknown are in all ages rightly treated with suspicion by a science properly anxious to confine itself to regions where hypotheses can be kept under the control of scientific fact.

In thus reasoning Aristotle manifests strong common sense, and it is on the same grounds that Darwinism, which is the central fortress of the present biological evolutionary scheme, has been rejected as utterly unscientific by Virchow and all the most eminent German scientists except Haeckel, and by many others in our own and other countries whose names bear weight in the world of science. Darwin has still his followers, and there is also a neo-Darwinism, but so unstable has the platform of the origin of species become, that it has been found necessary to discuss again the old question of what is meant by a species. When they have ascertained this they may probably resume the argument, but it will require to be by proofs of a higher order than "We may well suppose," "It is highly probable," or "There can be no doubt" before they can expect to influence the common sense of mankind.

Scientists themselves admit that if evolution cannot be proved there is no alternative other than "direct creation," but they refuse to accept this alternative because the knowledge of it comes to us through Divine revelation. It is unfortunate for science that it should be so prejudiced against the Bible as to reject or belittle

any of its statements on matters which it seems to think should be its own domain, and to consider the mentioning of the testimony of the Bible in questions of science a gross irrelevancy. But why should the testimony of this book in particular be *taboo*? The Bible is admittedly a good book, truly the most wonderful of all books, if it were only in respect of its persistence and circulation, in which it excels all other books in the world. Moreover, it is the oldest of all books and yet the youngest and freshest of all. Its words are living words and felt to be as full of power to-day as they were when first penned. And somehow, in spite of all attempts by its critics, Reverend and irreverent, to destroy its influence and authority, it is still the first and the last book for counsel and consolation with mankind wherever it comes, even with many of those who scientifically discountenance it. It carries within itself many evidences of its Divine origin. It forces no man's will, but appeals to its readers to prove all things and to hold fast only that which is good and true and pure. It claims to be the Truth, and it has something to say about all the sciences known to men, and in nothing that it says has it ever been convicted of being in error. Why, then, should such a reliable witness be thrust aside and declared ineligible, especially seeing that its supernatural origin places it in a position to deal with supernatural mysteries? It is no wonder that the ancient philosophers who were not privileged with revelation wandered in darkness, but it is lamentable that when light is come into the world men should still love the darkness rather than the light, for they can have no excuse.

Geologists indeed affirm that the Bible story of Creation is only a piece of dramatic fiction and not fact, and that independently and in spite of revelation they have discovered and set forth the method by which the earth and its contents must have been gradually evolved. But has geology ever satisfactorily established the imag-

inations on which it bases its theory of geological evolution and the origin of dead matter any more than biology has been able to do with regard to living creatures? It has never been wanting during the past two generations in bold assertion and sophistry, and thereby has unfortunately captured the credulity of many who seem not to discern that geological proof is not always logical proof, much more being in their conclusions than is warranted by their premises. In fact, evolutionary geology is in no position to question the Divine record, for it still remains an unproved hypothesis, and it is not possible from the nature of things to see how it can ever be anything else. In no human experience has any evolutionary geology taken place save that of degradation, and the cataclysmic forces which have been in operation in all ages and still operate from time to time, the past effects of which cannot be known or computed, are sufficient to account for many of the phenomena which geologists imagine they can otherwise explain.

On the other hand, the Bible statement of direct creation by the fiat of the Almighty God is clear, simple, and straightforward, in no way repugnant to our reason or common sense but eminently agreeable thereto. Indeed, in respect of all the phenomena of nature, whether ordinary or miraculous, the Bible is the most scientific book in the world. It never postulates an effect without putting behind it an efficient cause; and especially is this true with regard to origins, "In the beginning God"; "He spake and it was done, He commanded and it stood fast." What limit shall man put to omnipotence? Who will make God a liar when He Himself said from the Mount, "In six days the Lord made heaven and earth, the sea and all that in them is, and rested the seventh day," and say that He did not and could not do so? And is not God Omnipotent immanent still in His creative, preservative, and recreative working ever and everywhere? Where, then, is the

mystery? And why should we be willing to live in uncertainty and ignorance and speak of unsolved and unsolvable mysteries when knowledge from a sure source is placed to our hand? If scientific minds like Sir Oliver Lodge can get no further than to exclaim in the words of Tennyson:

“So runs my dream. But what am I?
An infant crying in the night,
An infant crying for the light,
And with no language but a cry,”

need men with common sense remain in that condition? Surely not. “Through faith we understand that the worlds were framed by the Word of God so that things which are seen were not made of things that do appear.” Is such a faith inadmissible in the field of nature? Then what remains but miserable credulity in the ever-shifting quicksands of human speculation?

We who are ministers of this Word find it the Text-book of our profession, giving us, as it does, our knowledge of the sciences which it is our special duty to know and to teach—theology, anthropology, and soteriology, three of the most important of all the sciences for men to know, and ignorance of which is fatal. We are, therefore, concerned that such baseless imaginations should not rob men of a living, loving God and a living faith. Evolution and the Christian faith are the direst enemies. You cannot maintain both.

It is an added joy to lovers of nature to have it always in remembrance that the omnipotent, omnipresent, bountiful, and gracious Jehovah is ever in touch with all His creatures. I know and am glad that, as a Club, in all our social gatherings we do not forget it. So there is in the Book another “ology” largely set forth as the duty of all men, and it is doxology. The Giver of all the good things we have in the field of nature and otherwise claims our gratitude and our praise, and so when our

hearts are set aglow with delight and admiration at the wonders of His creative wisdom, goodness, and power, it is surely a comely thing to render thanks and to give unto the Lord the glory due unto His name.

The pleasant duty remains to me of nominating my successor in this office of the Presidency of the Club, and when I name Captain Fullarton James of Stobhill, Morpeth, I know you will give him a hearty welcome. I am sure he will do honour to the Club, and I cordially wish him every success during his year of office.

TWO HUNDRED YEARS AGO.

“August 1726.—This moneth, we have the lamentable account of Sir Gilbert Eliot of Stobbs’ killing Colonell Steuart. It’s generally said Colonell Steuart gave very great provocation; that he was a huffing, hectoring person. The debate fell in upon the Election for the Shire,* and gentlemen and soldiers seem to vindicat Sir Gilbert in point of honour, as they call it, and say Sir Gilbert should have been caned, if he had not resented his treatment. But I believe this passionat murder will lye very heavy on Sir Gilbert’s mind. I have conversed with him, and took him to be a really religious person, and I find he goes under that character, though pretty passionat and violent in his temper, which nou has broke out. It’s very sad that such things break out, especially in a person under the character of religion. He is since pardoned by the King, but they say is gone over to Holland, and is deeply weighted with what he is [has] done.”—*Wodrow’s Analecta*, vol. iii, p. 318.

* Roxburghshire.

Reports of Meetings, 1926.

1. STOBO AND DAWYCK.*

THE first meeting of 1926 was arranged to be held at Oxnam. Owing to the General Strike it was found necessary to cancel the fixture, which was eventually carried out in September. The meeting held at Stobo and Dawyck on Wednesday, 16th June, thus became the first meeting of the year, and proved to be one of the wettest it has been the misfortune of the Club to experience for some time.

In spite of the rain, and of the absence of suitable trains, there was a satisfactory attendance of 60 members and friends. Present :—Rev. Henry Paton, M.A., President, and Mrs Paton ; Rev. J. J. M. L. Aiken, B.D., ex-President ; Mr Craw, Secretary ; Dr M'Whir, Editing Secretary ; Mr Duncan, Librarian ; Mrs Aitchison, Lochton ; Miss Boyd, Faldonside ; Mr J. W. Cockburn, Chapelhill ; Provost Curle, Melrose ; Mr T. College Halliburton, Jedburgh ; Dr Hay, Gifford ; Miss Hayward, Galashiels ; Mr J. Hood, Linhead ; Mr J. R. Lake, E. Ord ; Mrs Lyal, Gordon West Mains ; Mr J. C. Mather, Manderston ; Mr J. Meikle, Langrig ; Mrs Temple Muir, Darnick ; Rev. J. Ritchie, B.D., Gordon ; Rev. Canon Roberson, Norham ; Mrs Roberson ; Rev. J. Robertson, M.A., Lauder ; Mr D. Rodger of Muircleugh ; Mr J. Sharp, Horsburgh Castle ; Mr J. Spark, Melrose ; Mr W. Spark, Earlston ; Rev. A. E. Swinton, M.A., Coldstream ; Mrs Swinton ; Mr E. E. P. Taylor of Pawston ; Mr G. Taylor, Chapelhill ; Mr J. Tweedie, Berwick ; Mr J. Veitch of Inchbonny ; Mr T. Wilson, Hawick ; Mrs Wilson ; and Mr F. Wood, South Berrington.

The party gathered at the London and North-Eastern Railway Station at Peebles at 10.45. A number of the members wore

* See *Hist. Ber. Nat. Club*, vol. xi, p. 361 (1886) ; vol. xviii, p. 242 (1902) ; J. W. Buchan's *History of Peeblesshire* ; Macgibbon and Ross, *Ecclesiastical Architecture of Scotland*, vol. i, p. 329 (Stobo Church) ; Ditto, *Castellated and Domestic Architecture of Scotland*, vol. i, p. 183 (Neidpath) ; *The Scott Country*, W. S. Crockett ; *The Scottish Field*, May 1926 (Dawyck : by Miss E. Cameron).

the Club Badge, this being the first meeting to be held since its issue.

On reaching Neidpath Castle the party ascended to the great hall on the first floor. Here Mr Paton introduced Mr J. W. Buchan, M.A., LL.B., the editor of the new *History of Peeblesshire*, who traced the history of the building and the fortunes of its owners from mediæval times.

The lands of Neidpath belonged in 1300 to Sir James Fraser. His son, bearing the same name, was executed in London with Sir William Wallace in 1307. The lands were inherited by his daughter Mary, who married Sir Gilbert de Haya, and the property continued in the possession of the Hay family for nearly four centuries. By the marriage of Sir Thomas Hay, great-grandson of Sir Gilbert, to Joanna, daughter of Hugh Gifford of Yester, in the latter half of the fourteenth century, the Yester property came into possession of the Hays. Yester displaced Locherworth as the territorial designation of the family, and a century later John Hay of Yester was raised to the peerage.

In August 1563 Mary, Queen of Scots, visited Neidpath as the guest of William, 5th Lord Hay of Yester. John, 8th Lord Hay, was created 1st Earl of Tweeddale in 1646. His son John, 2nd Earl, defended Neidpath against Cromwell's troops under General Lambert in 1650, when the castle was surrendered. He was subsequently made 1st Marquis of Tweeddale in 1694, but had sold Neidpath and his land in Peeblesshire to the 1st Duke of Queensberry in 1686.

On the death of William, 4th Duke of Queensberry, in 1810, the estates passed to the 6th Earl of Wemyss, who was a great-grandson of a daughter of the 1st Duke. Neidpath is still the property of the family. The castle is let to the Town Council of Peebles.

The older parts of the castle date from the fourteenth century. It was built on the L-plan, with entrance by a door at the re-entering angle above the steep slope to the river. On account of the nature of the site the walls do not form right angles; the corners of the building are all rounded, and the walls are over 10 feet thick. Extensive alterations were made in the seventeenth century. The forecourt and its buildings date from this time, and a new doorway was made in the east front, a

staircase being cut in the thickness of the wall. On the key-stone of the gateway of the forecourt, a goat's head and coronet represent the crest of the Hay family.

After the members had heartily responded to the President's acknowledgment of Mr Buchan's help, they ascended the newel stair to the parapet. Even the rain could not wholly obliterate the striking views both up and down the Tweed valley.

Rejoining the cars and driving westwards, the party looked down on the house of Barns across the river, with the ridge of Cademuir in the distance crowned with its celebrated forts. About a mile farther on, the Sheriff Muir was passed with its standing stones, also Happlew, in the vicinity of which Wallace suffered defeat in 1304.

At Stobo members were met by the Rev. J. R. Cruickshank, B.D., minister of the parish, and listened with great interest to his description of the ancient and picturesque church.

Dating from the end of the twelfth century, the church of Stobo is the oldest church now in use in the country. Of the Norman church all that remains is the south doorway, a built-up doorway in the north wall of the nave, and two windows in the north wall of the chancel. Unfortunately the Norman chancel-arch was removed in 1868. On the north side of the church are the remains of a vaulted chapel,* with what appears to be a weathered piscina in the south-east corner. The church was much altered in the sixteenth and seventeenth centuries, the porch and the window in the south wall of the chancel belonging to this period. Regarding the merits of the latter, opinions differ.†

In the north wall of the chancel is a round-arched recess for a monument; it contains an effaced coat of arms. On the south side of the chancel is an ambry.

In the church is preserved an interesting graveslab (fig. 1) found in 1923 in the ruined chapel. On the border is the

* The Wall-rue Spleenwort (*Asplenium Ruta-muraria*) was growing plentifully on the ruined walls of this chapel.

† "The four-light window . . . is quaint and pleasing, the small circle at the apex giving it quite a touch of originality." *The Ecclesiastical Architecture of Scotland*, vol. i, p. 332 (Macgibbon and Ross). "The tracery head of this window is worked out of one stone and would be pleasing if it were not for the ugly round light at the top." *History of Peeblesshire*, vol. i, p. 224.

inscription: “+ *Hic · iacet · Maḡr · Robertus · Veitch · olī[m] · vicarie · de · Stobo · q̄[ui] · obiit · x^o die · Maii · aṅo · dñ · M^occc^o lxx^o iii.*” The stone also bears the letters “I.H.S.” and the representation of a chalice similar in form to one shown on the graveslab of a cellarer at Dundrennan Abbey bearing the date 1480. Another slab bears a cross-moline, and on a third is

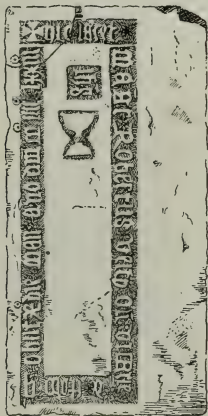


FIG. 1.—GRAVESLAB IN STOBO CHURCH.

carved a chalice with wafer above. There is also a fragment of a coped grave-cover with scale ornamentation.

At the side of the porch door hang the joughs—original except for one half of the collar, which has been restored.

In the graveyard, close to the east side of the church door, is a gravestone bearing the figure of a man in eighteenth-century costume, holding a gun (fig. 2). On his head is what appears to be a crown, but the resemblance may be due to the weathering of the stone. He has been mistakenly supposed to be wearing a kilt, but the tradition that he was one who was concerned in the 1715 rebellion seems to have a sound basis, though elsewhere disputed.* The stone bears the inscription:

* *Proc. Soc. Ant. Scot.*, vol. xlvii, p. 150, 1912–13.

"Here lyes the | body of John | Noble Tenet in | Broughtoun who | died Sep^{er} 20th 1723 | aged 69 years also Will | iam Noble his son who | died Sep^{er} the 14 aged 28 years | Of Resurrection with the Just | In Hopes we rest and ly that | in His power we raissd shall be | To mmortality and in his presse | nce to remain his Glory to ador | our mouths with Allelwias fill | of praisse ever more."

The stone of Janet Deans, 1730, bears a female figure holding an hour-glass in her left hand, and in her right a ribbon which curves over her head and bears the inscription "Sorrow not my glass was run, Nov. 19."

In the graveyard is buried Robert Hogg, a nephew of the

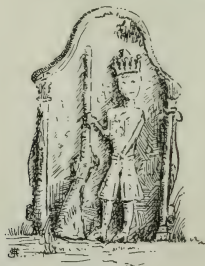


FIG. 2.—GRAVESTONE AT STOBO.

Ettrick Shepherd ; he acted as amanuensis to Sir Walter Scott, and also as secretary to Lockhart. He died in 1834, aged 32.

In the manse of Stobo Robert Louis Stevenson stayed for a fortnight in 1882, although he intended to spend the summer there.

Mr Paton thanked Mr Cruickshank for his help and guidance, drawing attention to the fact that this was the second occasion on which the Club had visited Stobo during his pastorate.

At the entrance to the grounds of Stobo Castle, Mr Ainslie, the factor on the estate, guided the party up the drive. At the castle members were received by Mr and Mrs Murray-Philipson. Rain now fell more heavily, and members accepted with gratitude the kind invitation to bring their lunch indoors. Here the members were indebted to their host and hostess for further hospitality, for which Mr Paton expressed the thanks of the Club.

Rested and refreshed, members were guided by Mr Murray-Philipson and Mr Ainslie to the grounds. Passing a fine old beech tree which had suffered from lightning, and traversing the terraces adorned with large and magnificent Japanese bronzes, members were led downwards to the water-gardens, which are the chief feature of the grounds. From the lower end of a fine artificial lake a high waterfall plunges from projecting masses of rock into a deep pool. The waters are then led through the gardens over a series of small cascades, and are crossed by stepping-stones and bridges. The banks and islands are clothed with a large variety of plants and flowering shrubs, the rhododendrons and azaleas being at their best at the time of the Club's visit. The slope of the embankment forms a large rock-garden, with winding paths and a varied collection of Alpine plants. The general effect is best seen from the bridge at the lower end of the gardens, or from the top of the waterfall. The splendour of the increased volume of water was some compensation for the discomfort caused by the rain.

From Stobo the drive was by Altarstone, Dreva, and Broughton. At Altarstone the large flat-topped rock from which the name is derived was noticed close to the right side of the road. At Dreva the interesting fort * was pointed out on the left; the site, 898 feet above sea-level and 300 feet above the river, commands a fine view of the upper Tweed valley.

After passing Broughton, the party drove through the grounds of Rachan, by the kind permission of Mr H. B. Marshall. Time, unfortunately, did not allow a stop to be made here, and passing Drummelzier the party continued its way to Dawyck.

The Club was welcomed to Dawyck by Mrs Balfour, who expressed regret that Colonel Balfour was prevented by another engagement from being present. Mrs Balfour then led the party through the grounds and woods, pointing out the ancient larches and horse-chestnuts, and naming many fine and rare examples of forest trees.

The Barony of Dawyck belonged in early times to the Veitches, between whom and the Tweedies of Drummelzier raged many a bloody fight. In the end of the seventeenth century the lands passed to the Naesmyths, who continued to hold them till, after

* See Appendix.

the death of the fifth baronet, they were bought by the present owners in 1897.

The estate has long been famous for its woods. The first horse-chestnuts planted in Scotland were those planted by Veitch at Dawyck about 1660: one of these now measures 16 feet in circumference at 6 feet above the ground. In 1725 Sir James Naesmyth, who was a pupil of Linnæus, planted the first larches in Scotland; five of these now remain, the girth of one of them is about $16\frac{1}{2}$ feet at the ground level.*

Sir John Naesmyth, the fourth baronet, built the present mansion-house in 1830. He planted extensively, introducing many exotic trees, which are now noble monuments to his labour and foresight. A Caucasian silver fir (*Abies Nordmanniana* Spach.) is over 100 feet in height, being the tallest recorded for Great Britain. A Douglas fir measures 111 feet 2 inches and girths $13\frac{1}{2}$ feet. Eight large silver firs (*Abies pectinata* D. C.) remain of those planted about 1735, the two largest are over 120 feet in height and girth 15 feet 11 inches at breast height. The fastigate beech (*Fagus sylvatica Dawycki*) at Dawyck is a remarkable tree, being the original tree of this variety; it is over 50 feet in height. Space does not admit of a fuller account of the large collection of conifers and other trees at Dawyck; in the chapter on Botany in the new *History of Peeblesshire* † Colonel Balfour has treated the subject in greater detail.

Rhododendrons, of which there is a large variety, flourish in the open spaces in the woods, and primulas brighten the banks of the Scrape burn.

Before leaving the woods, members visited the disused parish church of Dawyck. It was converted into a mausoleum, but religious services are occasionally held in it. The old baptismal font is octagonal in form, ‡ and resembles one from Dalgarnock, Dumfriesshire, figured in the *Proceedings of the Society of Antiquaries of Scotland*.§

Before leaving Dawyck the President cordially thanked Mrs

* The famous Dunkeld larches were planted in 1738; they now girth more than those at Dawyck. Larches at Kailzie are said to have been planted at the same time as the Dawyck larches.

† Vol. i, p. 418.

‡ Measurements: diameter 26 inches, height 14 inches; diameter of bowl 19 inches, depth 9 inches.

§ Vol. xxi (1886-1887), pp. 386 and 389.

Balfour for her kind welcome to the Club, and for the assistance and guidance the Club had received.

Peebles was reached rather later than was expected, and a party of 28 sat down to dinner at the Tontine Hotel.*

The following were admitted members of the Club, bringing the membership again to its limit of 400: Mr James Patrick Fair Bell, F.R.S.E., Springbank Villa, Ayton; Lady Biddulph, The Pavilion, Melrose; Mr Joseph William Carr, Horncliffe, Berwick; Mr William Donald Clark, West Ord, Berwick; Miss Margaret Hogg, Castle Vale, Berwick; Mr William Hogg, Birkenside, Earlston; Mrs Ishbel Juliet Ritchie, The Holmes, St Boswells; The Hon. Walter T. Hepburne-Scott, Master of Polwarth, of Harden, Hawick; Rev. Archibald Shaw, M.A., B.D., Wellington Terrace, Berwick; Miss Emily Jessie Stewart, Broadmeadows House, Berwick; Mr John William Stewart, ditto.; Miss Katherine Maud Swinton, Laws Farm House, Edrom; Miss Mary Edith Swinton, ditto.; Captain Collingwood James Thompson, A.F.C., The Kennels, Longridge; and Mrs Jane D. Turnbull, East End, Lauder.

APPENDIX.

DREVA FORT.

This fort is placed on a rocky knoll 898 feet above sea-level. It is $\frac{7}{8}$ mile south-west of Dreva. The knoll is on a projecting spur some 200 yards to the south of the road from Dreva to Broughton.

The ruins of what has been a massive stone wall enclose a circular area some 50 yards in diameter on the top of the knoll; in the interior are the remains of at least six hut-circles from 18 to 20 feet in diameter. The entrance has been on the east side; towards it can be traced a track approaching the fort from the north-east.

To the south of the fort, on a terrace at a slightly lower level, is an annex containing a hut-circle 20 feet in diameter. On more level ground below the annex, to the south, is an area covered with boulders set on end, evidently intended to check a rush across this ground. The same feature exists on the *col* to the north of the fort, though here fewer of the stones retain their upright position. On this *col* also lies a large circle 36 feet in diameter. The placing of stones to form a *chevaux-de-frise* has been observed also at West Cademuir fort, some six miles to the east.†

* The Hotel was built in 1808 on the Tontine principle. The shareholders originally numbered 144; the last survivor was Sir Adam Hay, who sold the Hotel in 1888 for £2750. The original cost of the property was £4050.

† See Christison's *Early Fortifications in Scotland*, p. 225.

1A. CHEVIOT.

A special botanical meeting was held on Thursday, 8th July, for the purpose of studying the botany of the ravines of Hen Hole and the Bizzle on Cheviot. The following 10 members were present: Mr Craw, Secretary, Mr Duncan, Librarian; Mr J. Bishop, Berwick; Mr A. Falconer, Duns; Major Logan-Home, Edrom House, Miss Logan-Home; Mr W. C. Millar, Berwick; Mr A. M. Porteous, Coldstream; Miss Wilson Smith, Pouterlynie; and Mr G. Taylor, Chapelhill.

The party met at Southernknowe, and starting at 11.30 a.m. followed the College Burn past Fleehope and Mounthooly to the mouth of the Hen Hole ravine, where a welcome pause was made for lunch. The day was fine and somewhat warm; a haze shut out entirely the wide views to be had from the hill, but the recent rains made the cataracts a striking feature of the day's walk.

In Hen Hole a pair of ravens soared for a time overhead, and a peregrine was seen in the distance. A pair of peregrines were seen later in the Bizzle; also a young one, which was watched for some time as it sat on a ledge of rock. Several ring-ouzels were also seen.

The party slowly ascended by the burnside, gathering botanical specimens by the way. The ravine was left at a point due east of the Auchope Cairn, and the party crossed the mossy ground to the head of the Bizzle. Mr Duncan led the way to the outcrop where he had found *Chandonanthus setiformis* var. *alpinus*, the only habitat of this hepatic in England. Here the party separated, some descended by the Bizzle—a steep and rocky route—and others followed a line by the Mid Hill to visit the stations of the dwarf cornel found by Messrs Duncan and Millar last year. The parties rejoined at the foot of the ravine, and reached Southernknowe shortly before 7 o'clock.

The following less common plants were observed:—Naked-stalked Teesdalia (*teesdalea nudicaulis* Br.), Blinks (*Montia fontana* L.), Cloudberry (*Rubus Chamaemorus* L.), Mossy Saxifrage (*Saxifraga hypnoides* L.), Meadow Saxifrage (*S. granulata* L.), Starry Saxifrage (*S. stellaris* L.), Grass of Parnassus (*Parnassia palustris* L.), Bog Sedum (*Sedum villosum* L.), Rose root (*Sedum roseum* Scop.), Common Sundew (*Drosera rotundifolia*

L.), Mountain Willow-herb (*Epilobium alsinifolium* Vill.), Marsh Pennywort (*Hydrocotyle vulgaris* L.), Hemlock Water Dropwort (*Oenanthe crocata* L.), Dwarf Cornel (*Cornus suecica* L.), Golden Rod (*Solidago Virgaurea* L.), Rayless Camomile (*Matricaria suaveolens* Buch.), Yellow Pimpernel (*Lysimachia nemorum* L.), Marsh Lousewort (*Pedicularis palustris* L.), Cow-wheat (*Melampyrum pratense* var. *montanum* Johnst.), Round-leaved Mint (*Mentha rotundifolia* Huds.), Bog Asphodel (*Narthecium ossifragum* Huds.), Parsley Fern (*Cryptogramme crispa* Br.), Hard Fern (*Blechnum Spicant* With.), Male Fern (*Dryopteris Felix-mas* Schott.), Brittle Bladder Fern (*Cystopteris fragilis* Bernh.), Common Club-moss (*Lycopodium clavatum* L.), Fir Club-moss (L. Selago L.).

Mosses: *Polytrichum alpinum*, *P. strictum*, *Rhabdoweisia fugax*, *Blindia acuta*, *Dicranum schisti*, *D. fuscescens*, *Splachnum sphaericum*, *Plagiobryum Zierii*, *Bryum filiforme*, *Hylocomium loreum*.

Hepatics: *Gymnomitrium obtusum*, *Leptoscyphus Taylora*, *Chiloscyphus polyanthus* var. *fragilis*, *Chandonanthus setiformis* var. *alpinus*, *Scapania subalpina*.

Lepidoptera: Painted Lady butterfly (*Pyrameis cardui*); Chimney-sweeper moth (*Odezia atrata*), Red Carpet (*Coremia munitata*), Grey Mountain Carpet (*Entephria caesiata*).

2. EDLINGHAM.*

The second meeting was held at Edlingham on Thursday, 22nd July, when 57 members and friends were present. These included Rev. Henry Paton, M.A., President, and Mrs Paton; Colonel Leather, Middleton Hall; and Mr Howard Pease, M.A., F.S.A., Otterburn Tower, ex-Presidents; Mr Craw, Secretary; Dr M'Whir, Editing Secretary; Mr Duncan, Librarian; Mr John Balmbra, Alnwick; Mr C. H. Hunter Blair, M.A., F.S.A., Newcastle; Miss Caverhill, Berwick; Mr J. H. Deans, Pitcox; Mrs Biber Erskine, Dryburgh; Mrs Erskine, Melrose; Mr H. B. Herbert, Falldon; Miss Herbert; Miss Milne Home, Paxton; Miss Sydney Milne Home; Mr R. Kyle, Alnwick;

* See *Hist. Ber. Nat. Club.*, vol. xii, p. 167 (1888); vol. xxii, p. 17 (1912); *History of Northumberland*, vol. vii.; *Trans. of Durham and Northumberland Arch. and Arcl. Soc.*, vol. v, p. 37; *Churches of Lindisfarne*, p. 395.

Miss R. Leather, Rothbury; Mr J. Little, Galashiels; Mrs Little; Mr W. Wells Mabon, Jedburgh; Mr C. P. Martin, The Thirlings; Mrs Martin; Miss Martin, Ord Hill; Mr R. Middlemas, Alnwick; Mr W. C. Millar, Berwick; Mrs Oliver, Edgerston; Miss Stevenson, Tuggal Hall; Miss S. Stevenson; Mr J. W. Stewart, Broadmeadows; Miss Stewart; Mr E. Thew, Gosforth; Mr F. W. Wood, South Berrington; and Mr H. M. Wood, B.A., Alnmouth.

The members met at Alnwick Railway Station at 10.23 a.m. and drove by a hilly road to Edlingham, a distance of six miles. Leaving the cars where the road to Edlingham joins the main road, the party walked over the heathery ridge to the Black Lough, a distance of about a mile and a half.

The day was somewhat dull, and a cool breeze made the gradual ascent more easy. Though Cheviot was capped with cloud, the view became very fine as the higher ground was reached. The top of Simonside came into view to the south-west, and Ros Castle rose prominently to the north. Between these two points the eye wandered over a wide area of hill country rising, ridge behind ridge, and dominated by Cheviot in the background. In the valley below, the eye could follow the supposed line of the Roman Road passing northwards from the Edlingham Burn towards Hedgeley.

A fine caterpillar of the Emperor moth was picked up on the heather during the ascent.

Lunch was taken when the party reached the lough. Well named, it is a rather featureless sheet of water, lying in a peat-moss which is some 12 to 15 feet in depth. Many stems and roots of birch and other trees can still be seen along the margin of the lough. Little of botanical interest was found: the Common Sundew (*Drosera rotundifolia* L.) and Bog Asphodel (*Narthecium ossifragum* Huds.) were gathered near the lough, and Mr Duncan reported the following from the moor: mosses, *Polytrichum aloides*, *Leptodontium flexifolium*, *Webera nutans* var. *longiseta*, *Hypnum exannulatum*, *Eucalypta vulgaris* (on a wall at Edlingham) and *Physcomitrella patens* * (at the castle); hepatics: *Odontoschisma denudatum*, *Leptoscyphus anomalus*,* *Calypogeia Trichomanis*, *Lepidozia setacea*, *Scapania undulata*.

A shower caused an earlier return to Edlingham than was

* Additions for v.c. 68.

intended. On arriving at the church the company was received by the vicar, the Rev. Edward J. Tayleur, F.S.A., who described the building. At the close of his remarks Mr Hunter Blair gave an account of the Felton family, and of the shield of arms * of Sir William Felton in the south wall of the nave (1359-60)—*gules* two lions passant within the Scottish tressure. Mr Blair traced the family's connection with the Scottish royal family from matter collected by him for the forthcoming volume of the *History of Northumberland*. Mr Paton, on behalf of the members, thanked the speakers for their interesting descriptions.

The oldest part of the church is the west wall of the nave, part of which may be pre-Norman. The south and east walls of the nave and the porch are Norman, dating from the first half of the twelfth century. The chancel is rather later. The north arcade of the nave was introduced about 1190, and the north wall of this aisle was probably built much later, possibly late in the fourteenth century. The tower most likely dates from about 1300, and is strongly built for defensive purposes. The tracery in the windows is all modern. In the south side of the chancel is a piscina. The font is now placed at the west end of the church; it is much older than the date carved upon it, 1701. Part of the shaft of a pre-Norman cross, which is preserved in the church, is figured in the new *History of Northumberland*; the base of a cross lies in the churchyard. Four grave-slabs in the church are here reproduced (fig. 3); the slab bearing both a sword and shears forms the threshold of the door. There is also figured the heraldic panel of the Rev. Michael Mitford (fig. 4), a son of William Mitford, rector of Elsdon. It bears on a fess, between three moles, a *fleur de lys* for difference. Below the panel is the inscription "Mabel, Daughter to the Rev | Mr Mitford Died june 23, 1745 | Elizabeth, Wife to the | Rev^d Mr Mitford died | February the 10th 1756 | The Rev^d Michael Mitford | Died August the 4th, 1770." In the garden of the vicarage is a sundial bearing the date 1726 and the letters

M
M E. The initials are those of Michael and Elizabeth Mitford, and the date is that of Mr Mitford's induction to the parish of Edlingham.

From the church the party walked to the castle, which

* See *Northumbrian Monuments*, p. 124 (fig. 254).

stands on lower ground some 200 yards to the east-north-east. Here Mr Tayleur pointed out the chief features of this finely-built but much ruined castle.

Edlingham is first mentioned as Eadulfingham (the ham of Eadwulf) about the year 737, when it was given to the monks of Lindisfarne by King Ceolwulf. It was one of the early possessions of the house of Gospatric, and passed from that family in 1296 when Thomas de Edlingham sold it to William de Felton. In 1403 the lands passed to Elizabeth, daughter of Sir John de Felton

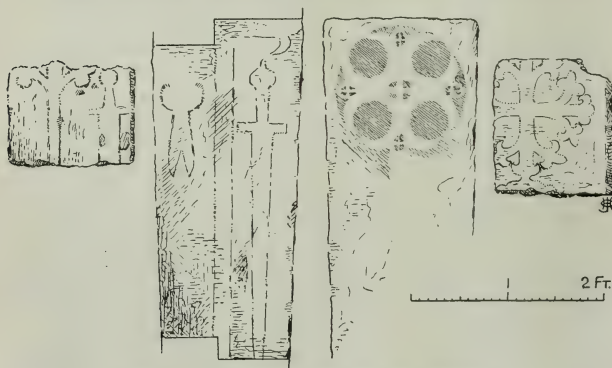


FIG. 3.—GRAVESLABS, EDLINGHAM CHURCH.

and wife of Edmund Hastings ; they continued in the possession of the Hastings family for over a century. In 1519 the manor and lands were bought by George Swinburne, to the courtesy of whose descendant, Sir Hubert Swinburne, the Club was indebted for permission to visit the castle and the Black Lough.

Though small in size, the keep measuring only some 35 feet square, Edlingham Castle has always been designated a castle, not a tower. The keep is built of good ashlar, and is three stories in height. The diagonal angle buttresses terminate in circular bartisans at the parapet level. The vault on the ground floor is now filled with debris. The first floor has formed a noble and ornate chamber with a groined roof ; it contains the ruins of a fine fireplace with a lintel of joggled stones ; this has been



A.



B.

EDLINGHAM CASTLE.

A. From the south-east.

B. From the north-east.



well illustrated in the new *History of Northumberland* and in Parker's *Glossary* (1850), where the date is given as *circa* 1330. A newel stair, partly in the thickness of the west wall, leads to the upper storey. The outlines of the courtyard or barmkyn can be clearly traced to the west of the keep; fragments of the curtain walls and of the gatehouse also remain.

On the kind invitation of Mr and Mrs Tayleur, the members then went to the vicarage, where they were hospitably enter-



FIG. 4.—HERALDIC PANEL, EDLINGHAM CHURCH.

tained to tea, a welcome refreshment at the close of the day's excursion. Mr Tayleur exhibited a graceful chalice with cover, bearing the date 1612,* and a fine copy of the first edition of White's *Natural History of Selburne*.

It was with reluctance that the members left the many treasures of the vicarage, which they would fain have examined further. Ere leaving, the President thanked both host and hostess for the kindness of their welcome.

Alnwick was reached shortly after 4 o'clock, and 17 members sat down to dinner at the White Swan Hotel.

* Belonging to the church at Edlingham are also a silver paten inscribed, "Thank offering of the Rev. James Manisty, B.D., vicar of Edlingham, 1808," and a pewter flagon with "Edlingham, 1738."

The secretary read a letter from Mr J. C. Hodgson, thanking the Club for their message of sympathy. He also read a letter from the Rev. M. M. Piddocke, intimating the successful raising of the monolith at Yeaving, for which the Club had subscribed the funds at their meeting there the previous August.

3. CORSBIE AND LEGERWOOD.*

The third meeting was held at Corsbie and Legerwood on Wednesday, 18th August. About 90 members and friends were present, but the meeting was much marred by rain.

Present: Mr G. G. Butler, M.A., and Rev. W. M'Conachie, D.D., ex-Presidents; Mr Craw, Secretary; Dr M'Whir, Editing Secretary; Mrs Aitchison, Lochton; Mrs Anderson, Earlston; Major Baird of Wedderlie; Miss Boyd, Faldonside; Mrs Brownlie, Haughead; Bailie Carter, Duns; Miss Caverhill, Berwick; Mrs Cowan, Yetholm; Rev. W. S. Crockett, Tweedsmuir; Mr Alex. Darling, Mayor of Berwick; Mrs Darling, Priestlaw; Mr W. S. Douglas, Kelso; Mr S. D. Elliot, S.S.C., Edinburgh; Mrs Erskine, Melrose; Mr A. A. Falconer, Duns; Mr W. Fortune, Ayton; Miss Shirra Gibb, The Roan; Mr G. J. Gibson, Gullane; Miss Grey, Berwick; Dr Hay, Gifford; Mr O. Hilson, Ancrum; Mr R. Hogg, Middlethird; Miss Holmes, Berwick; Miss Milne Home, Paxton; Miss S. Milne Home; Mr A. R. Levett, Wooler; Miss Lewis, Ayton; Rev. P. S. Lockton, Melrose; Mrs Logan, Birkhill; Mrs Lyal, Gordon West Mains; Mrs M'Conachie, Lauder; Captain M'Dougal, Blythe; Mr J. G. Maddan, Stockport; Mr J. C. Mather, Manderston; Mr J. Millar, Duns; Miss C. C. Miller, Duns; Mr G. H. Mills, Greenrigs; Miss Newton, Earlston; Mr C. S. Petrie, Duns; Mr N. Sanderson, Greenhead; Mr John Spark, Melrose; Mr W. Spark, Earlston; Mrs Spark; Rev. A. E. Swinton, M.A., Coldstream; Mrs Swinton; Mr E. E. P. Taylor of Pawston; Mr G. Taylor, Chapelhill; Miss

* See *Hist. Ber. Nat. Club.*, vol. ix, p. 235 (1880); vol. xiii, p. 140 (1890); vol. xvi, p. 25 (1896); vol. xvii, p. 26 (1899); vol. xxi, p. 145 (1910). *Ecclesiastical Arch. of Scot.*, vol. i, p. 320; *Dom. and Cast. Arch. of Scot.*, vol. iii, p. 426. *Hist. Mon. Com. Report, Berwickshire. The Border Magazine*, March 1926 (Corsbie Tower, by A. F.), October 1926 (Legerwood Parish: Rev. J. A. Cameron's Address to the Club).

G. Usher, Yetholm; Mrs Willits, Berwick; Miss Wilson, Wellnage; Mr T. Wilson, Hawick, and Mrs Wilson. The President wrote expressing his regret at being unable to attend the meeting.

It had been intended to drive from Gordon railway station by Huntlywood, and to walk to the top of the Knock, visiting the fort there and descending to Corsbie Tower. Heavy rain made it necessary to cancel this part of the programme, and the party drove direct to Legerwood church. The Rev. J. A. Cameron, M.A., B.D., minister of the parish, received the Club in the church, and gave an interesting account of the history of the parish and church, pointing out the features of the building and its monuments. In the absence of Mr Paton, Mr Butler thanked Mr Cameron on behalf of the Club. Mr Cameron's address has been published in the November issue of the *Border Magazine*.

The chief feature of interest in the church is the chancel arch of three semi-circular orders dating from the Norman period, the caps and abaci are enriched with geometrical sunk star ornamentation, which is continued along the east wall of the nave. There is a small ambry in the north wall of the chancel, in it may still be seen traces of coloured decoration. A fragment of what appears to have been the shaft of a pre-Norman cross is built into the south wall; it bears an interlaced design and has been figured in our *History*.* In the chancel is the monument of John Ker of Moristoun and Grissell Cochrane, his heroic wife.†

On the south-west angle of the church is a sundial, the inscription on which has been elsewhere misread. It bears the

letters ^M
W C with date 1689. Close examination shows that the date has been originally cut 1692, and subsequently altered. The letters represent Mr William Calderwood whose table gravestone is at the west end of the church. He was the outed minister of the parish, and was restored to his charge in 1689—the date on the dial. It is not improbable that the stone was cut and erected in 1692, and that the date was altered so that the year of triumph might appear on the stone—an interesting historical sidelight.

* Vol. xvi, plate III, p. 25.

† See *Hist. Ber. Nat. Club*, vol. xxv, Plate A, pp. 91 and 426.

The curious gravestone of William Montgomery of Makbehil, 1689, lies to the south of the church.*

As the rain had now ceased, the party retraced its steps to Corsbie. A field of long wet grass prevented a close approach, and the secretary gave an account of the tower from a vantage point to the north.

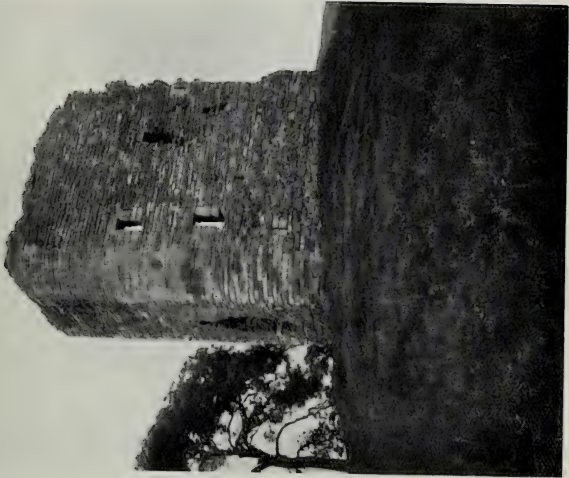
Corsbie is first mentioned in 1321 when Robert Bruce granted the lands to Walter Morthington, who was subsequently known as Walter de Crosby. In 1455 it is found in the hands of the Cranstons, the story of whose turbulent actions has been often told. In 1671 it was sold to the Duke of Lauderdale, whose family was related to the Cranstons. The girdle presented by the Duke to Midside Maggie, which is known to have been made in 1608-09, bears the initials B. C. for Barbara Cranston of Corsbie, who married Sir James Seton of Gordon in 1611. By the marriage of the Duke's daughter to Hay of Yester, the tower and lands passed to the Tweeddale family, in whose possession they still remain.

The tower is of sixteenth century date. It measures 40 by 27 feet, the walls being 6 feet thick. Only the south-west and north-west walls remain, the rounded angles are of dressed ashlar and several small square-headed windows remain. At the south angle a newel stair has led from the first floor to at least two upper floors.

Although we are told by Sir Walter Scott that the prototype of Avenel is Lochside Tower in Yetholm Loch, the tower of Corsbie would seem in many ways to answer the description. Being only seven miles from Melrose, it is nearer the *Monastery* country than Lochside; the character of the Cranstons was entirely similar to that of Julian Avenel; and the nature of the site is not unlike that described by Sir Walter. Moreover, the White Lady may still be seen at Corsbie, as a glance at Plate II will show! A local tradition records that the breach in the wall which has the form of a draped female figure was caused by the cannon of Colonel Fenwicke, to whom the position of the kitchen fireplace had been revealed by the cook from the tower. So far as is known the tradition is unsupported by any documentary evidence of a bombardment.

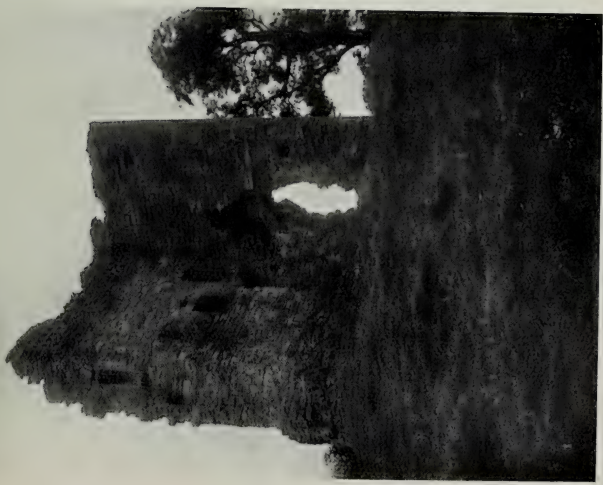
From Corsbie the party drove to Earlston. At the Rhymer's

* See vol. xxv, pp. 83 and 425, Plate G, e.



From the west.

CORSBIE TOWER.



From the south-east.



Tower the Club was fortunate in having as guide the Rev. W. S. Crockett, who, though unexpectedly called upon, was able to give an interesting account of Thomas the Rhymer and his connection with Earlston. Dr M'Conachie expressed the thanks of the Club to Mr Crockett. At the parish church the Club was again indebted to Mr Crockett for much information about both the church and the churchyard.

In the Temperance Hotel 35 members sat down to tea. Miss Betty W. Hood, Linhead, Cockburnspath, was elected to fill a vacancy in the membership. Mr Crockett exhibited a lock of the hair of Sir Walter Scott. The Secretary brought a £5 note of the Tweed Bank, given to the Club by Colonel Menzies, also photographs of Corsbie Tower and a pedigree of the owners of the Estate of Morristoun.

4. DUNSTANBURGH.*

The fourth meeting was held at Dunstanburgh on Thursday, 9th September. The attendance was the largest of the season, 108 members and friends being present. These included Rev. Henry Paton, M.A., President, and Mrs Paton; The Right Hon. Viscount Grey of Fallodon (with Lady Grey); and Mr G. G. Butler, M.A., ex-Presidents; Mr Craw, Secretary; Dr M'Whir, Editing Secretary; Mr J. B. Duncan, Librarian; Mr J. Balmbra, Alnwick; Mr J. Bishop, Berwick; Mrs Bishop; Captain L. Scott Briggs, Melkington; Mrs Briggs; Miss Brown, Chirnside; Mr J. Cairns, Alnwick; Provost Carmichael, Coldstream; Mr W. D. Clark, West Ord; Captain Davidson, Galagate; Mrs Erskine, Melrose; Mr W. Fortune, Ayton; Mr T. Gibson, J.P., Edinburgh; Mr T. H. Gladstone, Berwick; Miss Gray, Berwick; Mr John Grey, Broomhill, Morpeth; Mr H. B. Herbert, Fallodon; Miss Herbert; Miss Milne Home, Paxton; Miss S. Milne Home; Captain Fullarton James, Stobhill, Morpeth; Mr R. S. Johnston, O.B.E., Duns; Mrs Dixon-Johnson, Middle Ord; Mr J. R. Jones, Jedburgh; Mr R. Kyle, Alnwick; Mr J. R. Lake, East Ord; Mr A. R. Levett, Wooler; Mr W. Wells Mabon, Jedburgh; Miss Martin, Ord Hill; Mr J. C. Mather, Manderston;

* See *Hist. Ber. Nat. Club*, vol. vi, pp. 45 and 85 (1869); vol. viii, p. 411 (1878); vol. xix, pp. 30 and 60 (1903); new *History of Northumberland*, vol. ii; *Churches of Lindisfarne*, p. 134.

Mr W. C. Millar, Berwick ; Miss Miller, Wellnage, Duns ; Mrs Temple Muir, Darnick ; Mr L. Newbigin, Alnwick ; Rev. M. M. Piddocke, Kirknewton ; Mr A. M. Porteous, jun., Coldstream ; Rev. Canon Roberson, Norham ; Mrs Roberson ; Mr J. C. L. Romanes, Duns ; Mr T. B. Short, Waren Mills ; Mr A. R. Simpson, Edinburgh ; Mrs Simpson ; Mr H. R. Smail, Berwick ; Mrs Stevenson, Tuggal ; Miss Stevenson ; Miss S. Stevenson ; Captain Tate, Brotherwick ; Mr E. E. P. Taylor, Pawston ; Mr E. Thew, Gosforth ; Dr Waterson, Embleton ; Mr C. W. Waterson ; Miss Wilson, Wellnage ; Mr F. W. Wood, South Berrington ; and Mr H. M. Wood, B.A., Alnmouth.

After a dull morning with local showers, the weather became fine and added much to the pleasure of the excursion. The party met at Little Mill railway station at 10.30. Members coming by train from the north had arrived half an hour earlier and had time to pay a hurried visit to the limestone and whinstone quarries near the station.

The party then drove to the quaint fishing village of Craster, and proceeded on foot to Dunstanburgh. The castle, which appears to greatest advantage from this side, was in full view all the way.

When the members had assembled in front of the great gateway, Mr C. H. Hunter Blair, M.A., F.S.A., outlined the history of the castle, and then conducted the party from point to point, indicating the features specially worthy of notice, and referring the various portions to their respective dates. Viscount Grey expressed the thanks of the Club to Mr Blair, and mentioned that he paid the annual sum of 2s. 10d. to the owner of Dunstanburgh, a payment which he understood to be for the privilege of driving the stock from the lands of Fallodon into the castle in the event of a Scottish raid.

Covering an area of ten acres, the Castle of Dunstanburgh is the largest in Northumberland. Unlike other northern castles, it was not built as a defence against the Scots, but for purposes connected with the internal party warfare of England. In 1255 the barony of Embleton was acquired by Simon de Montford, Earl of Leicester ; after his death it came into the possession of Edmund, Earl of Lancaster, whose son Thomas succeeded to the Earldoms of Lancaster, Leicester, and Derby.

In 1313, the year before Bannockburn, Earl Thomas began to

build the Castle of Dunstanburgh, but in 1322 he was seized by Edward II and executed at his castle of Pontefract. The castle was thereafter in the custody of constables appointed by the King; the name of one of these, John de Lilburn (c. 1325) seems to have been preserved in the Lilburn Tower. Later in the fourteenth century the castle was the property of John of Gaunt, who added considerably to the defences.

On the accession of Henry IV in 1399, Dunstanburgh, as part of the Duchy of Lancaster, became practically vested in the Crown. Extensive repairs were carried out in the middle of the fifteenth century, and it became a place of much importance in the Wars of the Roses. In 1461 Queen Margaret obtained possession of Bamburgh, Alnwick, and Dunstanburgh, but Dunstanburgh capitulated to King Edward in the end of that year. Along with Bamburgh it was entrusted to the custody of Sir Ralph Percy, who a few months later delivered them again to the Lancastrian Party. In 1464 it was retaken by storm.

In the sixteenth century Dunstanburgh, like many other castles, gradually fell into serious disrepair. In 1550 it was "in wonderfull great decaye," and was considered to be too far from the Scottish border to be worth putting into repair.

In 1604 it was sold by James I, and the following year was bought by Sir Ralph Grey, whose descendants held it till the Earl of Tankerville sold it in 1869 to the trustees of the late Mr Samuel Eyres of Leeds. In 1919 it was bought from the Eyres trustees by Mr (now Sir) Arthur Munro Sutherland.

It is noteworthy that while the fine Gatehouse Tower and high curtain-wall of Earl Thomas have well survived the ravages of time, the later work of John of Gaunt and the Lancastrian kings has mostly disappeared. At a distance of 20 yards along the curtain to the west of the Gatehouse is the later gateway of the castle. As the curtain runs north along the top of a steep slope, there is passed, first, the foundation of a turret, and then the Lilburn Tower, beyond which the curtain runs to the edge of the Gull Crag. Near the east end of this cliff is the Rumble Churn, a natural chimney in the rock, through which a high column of spray is forced in stormy weather. This is the true Rumble Churn, the name having been given in error to the rocky inlet to the south, known as the Egginclough. A much decayed curtain-wall follows the coast southwards to the Eggin-

clough, at the head of which is placed the Egginclough or Queen Margaret's Tower. From this a fine stretch of curtain-wall runs to the Gatehouse Tower; on this curtain are placed the Constable's Tower and another small tower.

Before the party left the castle, Mr Butler gave a short account of the geology of the district, dealing specially with the Whin Sill, which forms the Gull Crag, and which can here be seen resting on the limestone rocks. The curiously folded Saddle Rock (Plate III), which is such a conspicuous feature on the shore to the north of the castle, was also pointed out.

Cars were rejoined at Dunstan Stead and the party drove to Embleton, where it was received by the Rev. F. C. Paul, M.A., vicar of the parish.

While the members were seated in the church, Mr Paul read an account of the Barony of Embleton, the church, and the more notable incumbents, and was cordially thanked by the President.

The church of Embleton is dedicated to the Holy Trinity. Of the original Norman church there remain part of the walls of the nave and the lower part of the tower, in the latter can be traced two narrow, round-headed windows in the north and south walls, now built up. In the chancel-arch are two capitals of transitional character, most likely belonging to an earlier chancel-arch of that period. About the year 1200 the nave arcades were introduced, with enrichment in the Early English style. The aisles were rebuilt about 1330-1340, when they were extended to include the tower within the church. The upper stories of the tower, with the effective open parapet, also date from this time, as does the chapel at the east end of the north aisle. The chancel is modern, and the windows in the body of the church have been renewed. Two niches at the east end of the north aisle have apparently been connected with chantries formerly existing there; the niches have ogee heads cusped and moulded, and each has a piscina beneath. Another chantry existed at the east end of the south aisle, where an ambry remains.

The pointed doorway of the porch has a hood-moulding terminating in angels with scrolls. Above this door is a richly-canopied niche having a demi-angel with spread wings beneath. The nave doorway is either modern or has been rechiselled.



THE SADDLE ROCK, DUNSTANBURGH.



In the porch are several graveslabs which have been illustrated in the new *History of Northumberland*.

After the members had examined the various features of interest in the church, Mr Paul conducted them to the vicarage, kindly showing them over the old vicarage tower which dates from 1395 and is one of the few existing fortified vicarages.

Dinner was served in the Dunstanburgh Castle Hotel, where 35 sat down together. The Secretary exhibited specimens of the so-called Dunstanburgh Diamonds, small crystals of quartz, gathered on the occasion of the Club's visit in 1903 ; also a cocoon of the Emperor moth.

After dinner some of the members had time to visit the whinstone quarries in the village before leaving to catch the evening trains at Christon Bank Station.

By the kind invitation of Viscount Grey, a small party who did not need to catch a train visited Fallodon in order to see the ducks which formed the subject of the interesting Presidential address of 1921.

5. OXNAM AND THE ROMAN ROAD.*

The postponed May meeting to Oxnam for the purpose of visiting the Roman Road and the camps at Cappuck and Penny-muir was held on Thursday, 23rd September. The weather was all that could be desired, and a clear atmosphere enabled the members fully to enjoy the wide views from the elevated ridge traversed by the road.

The meeting was attended by 92 members and friends, including Sir George Douglas, Bart. ; Rev. J. F. Leishman, M.A. ; Mr H. Rutherford of Fairnington and Mr J. A. Somervail of Hoselaw, ex-Presidents ; Mr Craw, Secretary ; Mr Duncan, Librarian ; Mrs Aitchison, Lochton ; Mme. Bertalot, Ayton ; Lieut.-Col. Bishop, Kelso ; Mrs Bishop ; Mr J. W. Blackadder, Ninewells Mains ; Miss Boyd, Faldonside ; Mrs Scott Briggs, Melkington ; Miss Brown, Chirnside ; Bailie Carter, Duns ;

* See *Hist. Ber. Nat. Club*, vol. xi, pp. 10, 93, 162 (1885) ; vol. xiv, p. 382 (1893) ; vol. xix, p. 337 (1905) ; vol. xxii, p. 47 (1912) ; *Proc. Soc. Ant. Scot.*, vol. xxix, p. 317 (1894-1895) ; vol. xlv, p. 446 (1911-1912) ; Roy's *Military Antiquities of the Romans in North Britain*, plate xxii ; Jeffrey's *History of Roxburghshire*, vol. i, p. 221.

Miss Caverhill, Berwick ; Mr W. D. Clark, West Ord ; Mr Alex. Darling, Mayor of Berwick ; County Alderman Thomas Darling of Marshall Meadows ; Mr W. S. Douglas, Kelso ; Mrs Biber Erskine, Dryburgh ; Mrs Erskine, Melrose ; Mr A. A. Falconer, Duns ; Miss Fleming, Kelso ; Rev. D. D. Fraser, M.A., Sprouston ; Mr A. M. Garden, Berwick ; Miss M. Gray, Berwick ; Miss Greet, Norham ; Rev. P. B. Gunn, Oxnam ; Mr P. B. Gunn, jun. ; Col. Hope of Cowdenknowes ; Miss Hope, Morebattle ; Miss Holmes, Berwick ; Mr R. G. Johnston, O.B.E., Duns ; Lieut.-Col. Scott-Ker, Brooklands ; Mr J. R. Lake, East Ord ; Miss Lewis, Ayton ; Rev. P. Lockton, Melrose ; Mr W. Wells Mabon, Jedburgh ; Mr W. C. Millar, Berwick ; Mrs Temple Muir, Darnick ; Mrs Oliver, Edgerston ; Mr T. Purves, jun., Berwick ; Mr H. R. Smail, Berwick ; Mr T. C. Smith, Berwick ; Mr T. Stirling, St Boswells ; Mr E. E. P. Taylor of Pawston ; Mrs Turnbull, Eastfield of Lempitlaw ; Mr J. Tweedie, Berwick ; Miss Usher, Yetholm ; Mr J. Veitch of Inchbonny ; Mr R. Waldie, Jedburgh ; Mr J. S. Watson of Easter Softlaw ; and Mr F. W. Wood, South Berrington.

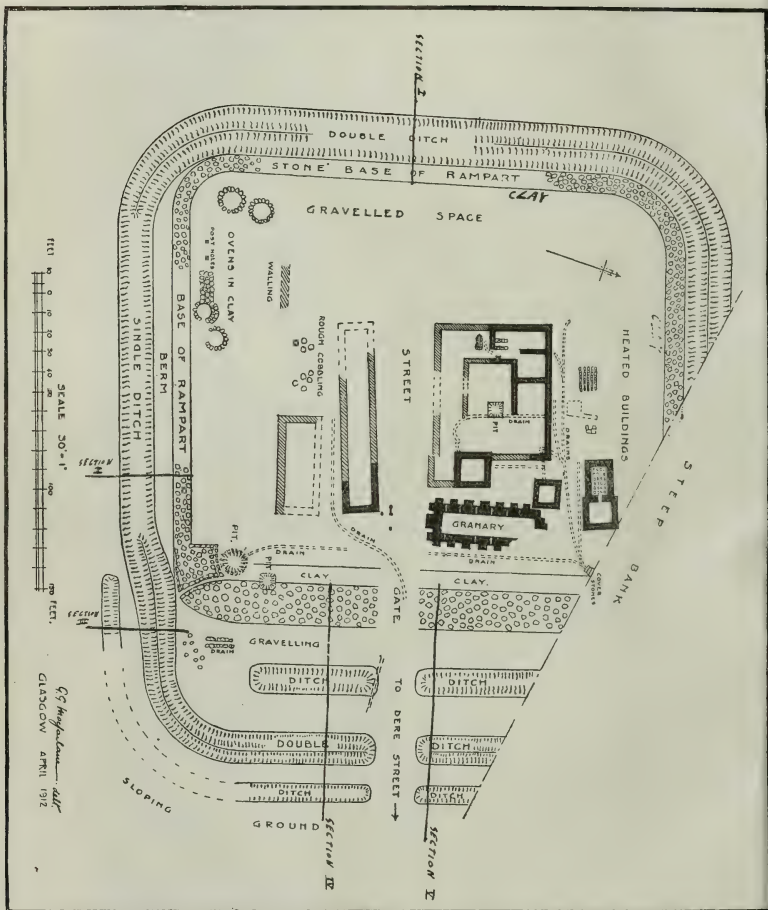
Meeting at Kelso railway station at 9.33 the party drove to Cappuck, a distance of eight miles. Here the members visited the Roman fort, and the Rev. P. B. Gunn read an account of the excavation of the site. The Secretary exhibited a plan, and pointed out where the various buildings were situated. With the exception of the foundations of the granary, these are no longer traceable, having been covered again with earth.

The Roman fort of Cappuck * lies close to the south side of

* The Roman occupation of England began in A.D. 43 in the reign of Claudius, the earlier invasion by Julius Caesar in 55 B.C. having resulted in no permanent occupation. The final withdrawal of the legions by Honorius took place in 410. In Scotland, on the other hand, instead of a period of three and a half centuries, the occupation covered little over a century, and can be divided into two distinct periods of about twenty and forty-five years, separated by a period of withdrawal of some forty years. In A.D. 80, in the reign of Titus, Agricola invaded Scotland as far as Perthshire, fought the battle of Mons Graupius, and threw up a chain of forts between the Forth and the Clyde. This early occupation came to a close about the end of the first century. About A.D. 120, in the reign of Hadrian, the frontier wall from the Tyne to the Solway was built. The second period of occupation began about A.D. 140, in the reign of Antoninus Pius, whose general, Lollius Urbicus, built the earthen wall from the Forth to the Clyde, strengthening the line of forts constructed by Agricola. This occupation came to an



ROMAN FORT, CAPPUCK.



the Roman Road, and on the right bank of the Oxnam Burn, the crossing of which it was designed to defend. The site was first excavated for the Marquis of Lothian by Mr Walter Laidlaw in 1886, as described in our *History*,* and a farther excavation was made in 1911-1912 by Messrs G. H. Stevenson, M.A., and S. N. Miller, M.A. An account of the latter is given in the *Proceedings of the Society of Antiquaries of Scotland*: † the plan then made is here reproduced (Plate IV).

The fort is small in size, measuring over all about 116 by 104 yards, and containing within the ramparts about $1\frac{1}{4}$ acres.‡ At the east side, between the fort and the Roman Road, there have been three ditches outside the rampart; on the other three sides there has been a double ditch which along most of the south side becomes single with a *berm* between it and the rampart. The rampart had been of clay on a foundation of cobbles 8 feet wide. The defences at the north-east corner of the fort have been lost by the encroachment of the stream on the steep bank. There is only one entrance—an unusual feature in Roman forts—placed, facing the road, in the middle of the east side. From this gateway a gravelled street ran east and west across the fort dividing it into two portions. In the south half were laid bare the foundations of two long buildings, the barracks of the garrison; and in the south-west corner were the remains of ovens.

In the north half the granary lies on the right as one enters by the gate. The foundations are noteworthy as being the only Roman stonework at present exposed to view in the south-east of Scotland. To the west of the granary were the administrative buildings of the fort, the commandant's house and the *Principia* having probably been combined for considerations of space; to the north of this were the baths with a hypocaust chamber. The western portion of the fort had been gravelled

end in the reign of Commodus about A.D. 185. The later invasion by Severus in 208, reaching as far north as the Moray Firth, was not followed by the occupation of any part of Scotland. It is noteworthy that while the remains of the two earlier invasions have been very evident at Newstead and Cappuck, no relics of the time of Severus have been found. It may be that he did not advance across the Cheviot Hills, but came by sea to the Firth of Forth.

* Vol. xiv, p. 382 (1893).

† Vol. xlv, p. 446 (1911-1912).

‡ The small fort at Chew Green contains about $\frac{3}{4}$ acre.

and revealed no foundations of permanent buildings. As in the case of Newstead, clear indications of two periods of occupation were revealed in excavation. The finds included a Legionary tablet of the twentieth legion (in 1886), Samian ware and other pottery, querns, spearheads, brooches, horse ornaments, armlets, beads, and thirteen coins of which six were minted before A.D. 84, the period covered by the coins extended from the reign of Vespasian (A.D. 69-79) to that of Faustina Senior (died A.D. 140).

Proceeding to Oxnam, the party gathered in the church, where Mr Gunn gave an interesting account of the history of the parish and described its antiquities. He also exhibited a charter of James IV under the Great Seal, dated 30th April 1509, in favour of Robert Colville of Hiltoun, of half the barony of Oxnam.*

Sir George Douglas on behalf of the Club thanked Mr Gunn for his address and for the great trouble he had taken to ensure the success of the meeting.

In the vestry were laid out a number of antiquities found in the locality, chiefly from the collection of Mr James Fairbairn, Shothhead, who was present at the meeting. They included stone axes, hammer stones, whorls, arrow points, and other implements of flint.

In the churchyard Mr Gunn pointed out the joughs (fig. 1), a slab bearing in relief a cross with cable-moulding above (fig. 2), the monument of the Rev. Alexander Colden, restored as suggested at the meeting of the Club at Oxnam in 1885, and the flat gravestone of James Davidson, one of the prototypes of Dandie Dinmont, with the inscription, "... also James Davidson their son, the late tenant in Hindlee, who died at Bongate 2nd January 1820, aged 75 years."

At Shothhead the party regained the Roman Road, along

* "Half the barony and lands of Oxnam, Heytoun, and Maxtoun, with the fishings of Maxtoun on the water of Tweda, with the mote and messuage of Oxnam, etc. . . . formerly belonging to Elizabeth Colville, eldest daughter and one of the heirs of umgle William Colville of Ochiltree, knight . . . with the consent of her spouse Robert Colville, son and apparent heir of William Colville of Ravenscraig." *Witnesses*.—"The Rev. father in Christ, James, Archbishop of Glasgow; William, Bishop of Aberdeen, Keeper of the Secret Seal; Alexander, Earl of Huntlie; Archibald, Earl of Argyle; Matthew, Earl of Lennox; Alexander, Lord Hume; Andrew, Lord Gray; and Master Gavin Dunbar, Archdeacon of St Andrews."

which the route lay to Shibden Hill and Whitton Edge. At the latter point members left the cars, which descended to Hounam and followed the Kale valley to await the walking party at Pennymuir.

Shibden Hill marks the point where the Roman Road changes its character from a straight line to one accommodating itself to the nature of the Cheviot Hills. To this point from Newstead, some twelve miles to the north-west, the straightness of the line is very striking. From Whitton Edge southwards the road



FIG. 1.—JOUGS, OXNAM CHURCH.



FIG. 2.—CROSS IN CHURCHYARD.



FIG. 3.—CROSS IN MANSE GARDEN. TO RIGHT, MASON'S MARK ON STONE AT CRAG TOWER.

is only used as a drove road ; it forms a ridgeway and may date from long before Roman times. Where best preserved it is about 14 feet in width with considerable camber, and with a ditch on either side some 2 feet in depth ; the total width of road and ditches being some 60 feet. By the side of the road may be seen the pits from which material has been dug for repairing it.*

About a mile and a half from Whitton Edge, and half-way to Pennymuir, is the Five Stones Circle. It lies 25 yards to the east of the road, on the south-south-east slope of a knoll, and

* The top of Cunzierton Hill (pronounced Coon'-yer-ton), which stands out prominently about a third of a mile to the west of the road, is encircled by the rampart of a fort. This fort measures some 170 yards from north to south and 80 yards from east to west. The rampart of earth and stone, derived apparently from the interior, is about $2\frac{1}{2}$ feet high on the inner side. There are entrances on the north, south, and east sides ; the first of these is approached by a track which curves up the hill from the north-east. The south entrance is defended in an unusual way by advanced horn-works.

some 30 feet from the top of the knoll. Five boulders form a small circle 16 feet in diameter, the largest stone being 2 feet 11 inches above the ground; some 50 feet to the east lie two more stones 10 feet apart.

A second stone circle lies close to the west side of the road on the highest point reached by the road between Oxnam and Pennymuir, 1090 feet above sea-level. It measures 34 feet in diameter and consists of seventeen large stones and a few smaller; two stones lie near the centre of the circle. The highest stands 2 feet 9 inches above the ground, and a fallen stone at the north side measures 4 feet 3 inches by 3 feet 9 inches.

The remains of a third circle lie to the west of the road on the descent to Pennymuir, and about a third of a mile south of the second circle. It is some 47 yards in diameter; five large stones in the centre have probably formed a megalithic cist and are associated with the remains of a circular earthen mound; one of these stones is 4 feet 8 inches in height, by 5 feet 6 inches, by 2 feet 9 inches. The circle itself is formed by one large boulder to the north, one to the west, two to the south, and one to the east, the last being beyond the road.

A third of a mile to the south of this circle, at the junction of two boundary walls, lies a mound 25 feet in diameter and $2\frac{1}{2}$ feet in height, apparently a cairn of the Bronze Age.

A short pause was made for lunch at the second circle, from which, as from the whole of this stretch of the road, a magnificent view is to be had of the Cheviot range and of the surrounding Border country.

On reaching Pennymuir members walked over the large Roman Camp of 44 acres, which seems to have suffered little since it was surveyed for General Roy (Plate V). Unlike the fort at Cappuck, which was constructed for a small, permanent garrison, this camp was designed for the accommodation of an army on the march. The rampart has been partially levelled by cultivation towards the south and south-east. There have been six entrances, one each to north and south, and two each to east and west. These are some 60 feet in width and are each covered by a *titulus* of similar length, the distance from the top of the rampart to the top of the *titulus* being about 48 feet. The south rampart seems to have run along the bottom of a slight natural hollow, the *titulus* being still distinct on the south



shoulder of the hollow. A smaller camp, some 11 acres in extent, occupies the south-east corner of the camp, one entrance remains to the north and two to the west; each of these is defended by a *titulus* 30 feet long placed 40 feet outside the entrance. The defences of both the large and small camps measure about 25 feet across; those of the latter are in a rather better state of preservation, but in both of them the top of the rampart is about $4\frac{1}{2}$ feet above the trench, at the best-preserved parts. What appear to be stock-enclosures of a later date lie within the large camp, and outside it to the west. A black dyke runs across the camp from north to south in a line roughly parallel to the west rampart, it becomes lost before reaching the south end, but appears to have cut through the north rampart at a later date; both works, however, are much obliterated at this point. To the north it can be traced for some distance running across the moor.

The Roman Road runs past the camp on its east side, and the site of the Street House of Roy's plan can still be seen close to the road. The ruin now known as Street House, however, can be seen in the distance, high on the shoulder of Woden Law, lying in a depression on the line of the road. On the summit of the Law are works of much interest, some suggesting a Roman, and some a native, origin.

After having fully examined the camp at Pennymuir, members rejoined the cars, and Kelso was reached before four o'clock. Mr Henry Rutherford of Fairnington presided over a company of 19 in the Cross Keys Hotel. In a facetious speech the veteran ex-President referred to his having celebrated his ninety-fifth birthday eight months before, being eight months older than the Club.

Mr A. Falconer sent for exhibition an ichneumon fly (*Rhyssa persuasoria*), caught at Foulden by Mr John Ovens. This fly lays its eggs in the burrows of the saw fly (*Sirex*), on the grubs of which its larvæ feed as external parasites.*

The Secretary exhibited two church tokens of Oxnam Parish, and a portion of a blue melon-shaped bead of vitreous paste, found at West Foulden, and similar to beads found in the excavations at Cappuck and Newstead.

* See *The Scottish Naturalist*, November-December 1922.

6. BERWICK.

The annual business meeting was held at Berwick in fine weather on Wednesday, 13th October, when the attendance was 78. Present: Rev. Henry Paton, M.A., President, and Mrs Paton; Rev. J. J. M. L. Aiken, M.A., B.D.; Mr G. G. Butler, M.A.; Rev. J. F. Leishman, M.A.; Rev. W. M'Conachie, D.D., and Mr J. A. Somervail, ex-Presidents; Mr Craw, Secretary; Dr M'Whir, Editing Secretary; Mr Dodds, Treasurer; Mr Duncan, Librarian; Mrs Aitchison, Lochton; Mr J. P. F. Bell, F.R.S.E., Ayton; Mr J. Bishop, Berwick; Mrs Bishop; Mr J. W. Blackadder, Ninewells Mains; Miss Brown, Chirnside; Mr J. Cairns, Alnwick; Mr J. W. Carr, Horncliffe; Miss Caverhill, Berwick; Mr J. W. Cockburn, Chapelhill; Mrs Darling, Priestlaw; Lieut.-Col. J. Davidson, M.A., M.D., D.S.O., Lasswade; Mrs Erskine, Dryburgh; Miss Fleming, Kelso; Mr T. H. Gladstone, Berwick; Miss Greet, Norham; Miss Gray, Berwick; Miss Grieve, Lauder; Mr P. M. Henderson, Berwick; Rev. P. S. Hendry, M.A., Paxton; Mr H. B. Herbert, Fallodon; Miss Holmes, Berwick; Miss Milne Home, Paxton; Miss S. Milne Home; Miss Hope, Morebattle; Captain Fullarton James, Stobhill; Mr R. G. Johnston, O.B.E., Duns; Mr R. Kyle, Alnwick; Mr A. R. Levett, Wooler; Miss Martin, Ord Hill; Mr J. C. Mather, Manderston; Mr W. C. Millar, Berwick; Mr G. H. Mills of Greenrigs; Rev. Canon Roberson, Norham; Mrs Roberson; Mr T. B. Short, Waren Mills; Mr J. D. Smith, Peelwalls; Mr T. C. Smith, Berwick; Mr A. C. A. Steven, Berwick; Mrs Stevenson, Tuggal Hall; Miss Stevenson; Miss S. Stevenson; Rev. A. E. Swinton, M.A., Coldstream; Mrs Swinton; Mr T. M. Tate, Berwick; Mr E. E. P. Taylor of Pawston; and Mr J. S. Watson of Easter Softlaw. Apologies were intimated from Sir George Douglas, Bart.; Mr J. C. Hodgson, M.A.; Mr Howard Pease, M.A., F.S.A.; Rev. W. S. Crockett; Mr J. Deans; and Mr F. W. Wood.

From the railway station, where members met at midday, the party walked to the new bridge being built across the Tweed. Every facility had been kindly granted by Messrs L. G. Mouchel & Partners, Ltd., the engineers, and Messrs Holloway Brothers, the contractors. At the offices at the Tweedmouth end of the bridge the party was met by Mr T. H. Bryce, M.Inst.C.E., District

Engineer for Messrs Mouchel, and Mr J. H. Hannay-Thompson, B.Sc., Assistant Resident Engineer.

Mr Bryce, with the aid of a large-scale drawing showing the elevation of the bridge, explained it in detail, and then described a number of exhibits, laid out in the office, illustrating the nature of the foundations, and the material used in the construction of the bridge. There were also shown an iron cannon ball and the red deer antler exhibited to the Club at the business meeting of 1925.

The party then divided into two sections and were conducted over the bridge. From 100 to 120 men were engaged on the work, many of whom were working at pier D, the fourth from the Tweedmouth side. The foundation of this pier had given considerable trouble, owing to the fact that the trial boring did not fairly represent the character of the whole area. A bed of peat was here found beneath the sand, also a large tree in sound condition. The excavations for piers A, B, and C had been chiefly through gravel, and at pier E (on the Berwick bank) sandstone and shale were met with.

Members were much impressed by the light and graceful appearance of the bridge, the impression of lightness being increased by the knowledge that the great ribs are tubular. The composition of the mixture used was stated to be 1 of cement, 2 of sand, and 4 of whinstone chips and gravel in equal proportions; this mixture of whin and gravel was found to give a stronger concrete than if either ingredient were used separately. The method of placing the ironwork in position was also explained.

Some of the party climbed to the decking of the bridge, from which they could appreciate the superiority of the new crossing with its wide roadway and easy gradient.*

Proceeding from the bridge to the Kings Arms Hotel, members to the number of 50 sat down to lunch. The President expressed to Messrs Bryce and Hannay-Thompson the thanks and gratitude of the Club for their guidance and help.

In the small assembly room of the Hotel the customary business was then transacted. The President read the Address and nominated as his successor Captain Fullarton James. The new President, in accepting office, said that had he heard the

* See vol. xxv, p. 372.

President's Address four weeks before, and had known what was expected of him, he would not have been standing there that day; he confessed he was a complete fraud (laughter). Captain James thanked Mr Paton for his Address and referred to the valuable work he had done in adding to our knowledge of local history through the many volumes of which he had been Editor.

The Secretary then read the Annual Report.

REPORT.

Not for several years have conditions been so adverse to the carrying out of the Club's programme as in the summer of 1926. The first meeting had to be postponed on account of the General Strike, and rain fell on the occasion of the next three meetings, seriously marring the pleasure of two of them. At the two last meetings, however, the weather was all that could be desired, and the wide view of the Eastern Borders under an autumn sun will not soon be forgotten by those who followed the Roman Road from Whitton Edge to Pennymuir on 23rd September. The average attendance at the five meetings was 81. It has been found possible this year to arrange for only one special botanical meeting; this was held on Cheviot and was attended by 10 members.

In accordance with the remit from the business meeting last year, the Club's badge has been designed and issued. It has been supplied to about half of the members.

During the year the Club has suffered loss by the death of the following members: Mr John Ferguson, Edinburgh, formerly of Duns, an ex-President whose guidance in the field will long be gratefully remembered, and whose contributions to our *History* are a monument to his memory and a model of accuracy, learning, and literary style; Mr David Wardlaw Brown Tait of Langrig; Dr James Drummond, Hawick; Mr Richard James Alexander Hewat of Netherbyres; and Mr John Wylie, Duns.

The following records have come to hand:

Ornithology—WILLOW WREN (*Phylloscopus trochilus*, L.).—An unusually late occurrence is reported by Mr J. M. Craster, a pair being seen on 24th October.

GOLDFINCH (*Carduelis elegans* Steph.).—Several records to

hand show that this bird continues to increase in our district. Dr M'Conachie reports that 20 to 25 were seen for a week in the end of March near Whitslaid, Lauder. Mr R. Craigs mentions two pairs having nested at Old Melrose.

MARTIN (*Chelidon urbana*, L.).—I am indebted to Mr A. M. Porteous, jun., for the following record. In the middle of December a martin was seen at Little Swinton. It was noticed to descend frequently to a grating over a drain, where on examination its mate was found imprisoned. The bird had obviously fallen down a spout into the drain. Here it had been fed by its companion, which must have resisted the power of the migratory instinct rather than desert its mate. On the grating being raised, both birds flew off and were not again seen.

STARLING (*Sturnus vulgaris*, L.).—In the beginning of January a starling found dead in a corn stack at Stuartslaw, Edrom, was found to be marked with a ring bearing, "Palam, Helsingfors 840." The flight from the Gulf of Finland represents a distance of 1000 miles, and is in accordance with the already-known line of migration of starlings.

JAY (*Garrulus glandarius*, L.).—Seen at Hirsell in December.

HEN-HARRIER (*Circus cyaneus*, L.).—A male was seen near Lauder in the autumn of 1925.*

BITTERN (*Botaurus stellaris*, L.).—The most interesting record of the year is that of a bittern which took up its abode at Charter Hall from 19th December till about 20th February. It was carefully guarded, but left about the latter date. This is probably the only record for over a century of a bittern having made a lengthened stay in Berwickshire.

SMEW (*Mergus albellus*, L.).—Shot on the River Eye near East Reston by Mr Allington on 15th December.

TURTLE-DOVE (*Turtur communis*, Sel.).—Injured by telegraph wires, was picked up near Chapelhill, Cockburnspath, on 2nd June, and recorded by Mr George Taylor.

PHEASANT (*Phasianus colchicus*, L.).—At West Foulden a hen pheasant hatched out two hen's eggs, and was seen for about a week followed by two white chickens. These soon disappeared, having doubtless fallen easy victims to some bird or beast of prey.

RINGED PLOVER (*Ægialitis hiaticola*, L.).—Mrs Smith, Whit-

* *Scot. Nat.*, 1926, p. 117.

chester, reports that Mr W. Bruce, gamekeeper, found a nest of the ringed plover with three eggs on gravel near the junction of the Dye and the Whitadder. Plentiful on the coast, this bird is not frequently seen inland; Mr Bolam, however, records having seen it in summer as far inland as the Lyne and Gala Water.

CURLEW SANDPIPER (*Tringa subarquata*, Güld.).—Mr J. M. Craster reports one (of a party of five) shot between Craster and Embleton on 25th September 1925.

SANDWICH TERN (*Sterna cantiaea*, Gmel.).—A tern, ringed on the Farne Islands on 8th July 1919, was found in 1925 at the mouth of the Berg River, 80 miles north of Cape Town, and over 6000 miles from the Northumbrian coast.

GLAUCUS GULL (*Larus glaucus*, Fab.).—On 22nd February I found a dead glaucus gull at Ross, Belford. The wing expanse measured 5 feet 3 inches, this being, next to the greater black-backed gull, the largest of our gulls. The legs were pale in colour, as in one found by Mr Bolam at Murton in 1895.

Mr Dodds reports that 89 common cormorants, 1 shag, and 7 goosanders were killed on the Tweed and its tributaries during the year ending 30th June last.

Piscatology.—A fine example of the Great Pipe Fish (*Syngnathus acus*), 16½ inches in length, was caught behind Berwick pier about 12th February.

A yellow trout weighing 7 lb. 6 oz. was caught in Horncliffe backwater on 23rd September 1926. It had been left stranded after a flood. It measured 26¾ inches in length and 14¼ in girth.

Entomology.—Three instances of the Convolvulus Hawk moth (*Sphinx convolvuli*), the largest of the British moths, occurring in the district in the autumn of 1925 are to hand: at Paxton on 18th September, at Whitchester, Duns, about the same time, and at Cateleugh reported by Mr R. Craigs.

Publications.—The following recently published books deal with our district:—

Berwickshire and Roxburghshire (Cambridge County Geographies), by Rev. W. S. Crockett, Tweedsmuir.

Durham Monuments; or The Shields of Arms, Effigies and Inscriptions in the Churches, Castles and Halls of the County of Durham, by C. H. Hunter Blair, M.A., F.S.A.

The Geology of Berwick-on-Tweed, Norham and Scremerston

(Geological Survey of Great Britain), by A. Fowler, M.A., B.Sc. A copy of this publication, together with the New Series, Sheets 1 and 2, has been presented to the Club by the Survey.

Walks from Wooler, by the late W. Ford Robertson, M.D., and *Melrose*, an official guide, form useful additions to our local guide-books.

Mention should also be made of *A Census Catalogue of British Mosses*, by our Librarian, Mr J. B. Duncan.

The Proceedings of the Society of Antiquaries of Scotland, vol. lix (1924-1925), contains "Notes on a Group of Chipped Stone Implements from Roxburghshire and Berwickshire," by J. M. Corrie, F.S.A.Scot.; "Notes on Five Documents relating to the lands of Feoroule in Roxburghshire, dating from 1453 to 1542," by William Douglas, F.S.A.Scot.; and "The Mutiny Stones, Berwickshire," by J. H. Craw, F.S.A.Scot.

I have to thank all who have assisted in the preparation of this Report. Records of interest throughout our district will be gratefully received from members and others.

The following office-bearers were re-elected: Secretary, Mr J. H. Craw; Editing Secretary, Dr J. M'Whir; Treasurer, Mr R. H. Dodds; Librarian, Mr J. B. Duncan.

New members were elected as follows: Miss Jean Herriot, Silanchia, Norham; Mr James Scott Elliot Walker, Tweedholme, Norham; Mr Andrew Pringle Oliver, Sheriff Clerk of Roxburghshire, Friars Vale, Jedburgh; Mrs Helen M. G. Holderness, Glen Aln, Alnwick; Captain the Hon. H. B. Robson, Lesbury House, Lesbury. These additions brought the membership again to the limit of 400.

The Treasurer's Statement was then presented by Mr Dodds, showing a nett estimated credit balance of £90, 3s. 11d., the debit balance on the year's working being £84, 15s. 1d. This loss was due to the high cost of printing the Club's *History*.

The members listened with great interest to Mr Butler's report of his visit as their delegate to the Oxford meeting of the British Association. He was thanked by the President, and Mr Bishop was appointed delegate to the Leeds meeting in 1927.

A list of places suggested for meetings in 1927 was read, when it was remitted to the new President and the Secretary to make the necessary arrangements.

It was agreed to contribute £5 to the North of England Excavation Committee, which is doing useful work among the Roman remains in Northumberland.

Mr Leishman exhibited and described a charter, dated 17th February 1648, relating to lands in Linton parish. It was witnessed by Mark Carse or Cass of Cockpen, the "Laird" of the well-known song.

Mr Bishop brought a specimen of the fossil *Saccammina Carteri* from the Acre Limestone at Scremerston. There were also exhibited: the head of the 51½ lb. salmon caught on Norham Boat-house water by Dr Fison in October 1922; male and female *Convolvulus Hawk* moths (*Sphinx convolvuli*) from Burma; and the recently issued local literature mentioned in the Secretary's Report.

A KIRKNEWTON GRAVESLAB.

By JAMES HEWAT CRAW, F.S.A.Scot.

In the report of the Club's meeting at Kirknewton in 1925,* there is a reference to the Burrell graveslab in the south "porch" of the church.

Being recently in the district, I took the opportunity of examining more carefully, with the aid of an electric torch, the faint inscription which runs round the border of the stone.

Part of the inscription is covered by the cement of the floor, and some parts are entirely lost. The following, however, can be deciphered:—

[+H]IC IACENT ANDREAS BOWRELL I[N
HOWTEL ?]L ET MARIA CONSORS SUA
[QUI • OBIERUNT ANNO DOMINI
M]CCCC LVIII . QUORUM ANIMABUS
PROPICIETUR DEUS AMEN.

A photograph of the stone, with a description, has recently appeared in the *Proceedings of the Society of Antiquaries of Newcastle-upon-Tyne*.†

* *Hist. Ber. Nat. Club*, vol. xxv, p. 356.

† 4 *Ser.*, vol. iii, p. 13.

A SCOTTISH BORDER LIBRARY.

BY J. LINDSAY HILSON *VRM*

“ IN early youth I resided for a considerable time in the vicinity of the village of Kelso, where my life passed in a very solitary manner. I had few acquaintances, scarce any companions, and books, which were at the time almost essential to my happiness, were difficult to come by. It was then that I was particularly indebted to the liberality and friendship of an old lady of the Society of Friends, eminent for her benevolence and charity. Her deceased husband (? father) had been a medical man of eminence, and left her with her valuable property, a small and well-selected library. This, the kind old lady permitted me to rummage at pleasure, and carry home what volumes I chose, on condition that I should take, at the same time, some of the tracts printed for encouraging and extending the doctrines of her own sect. She did not even exact any assurance that I would read these performances, being too justly afraid of involving me in a breach of promise, but was merely desirous that I should have the chance of instruction within my reach, in case whim, curiosity, or accident might induce me to have recourse to it.”

Thus wrote Sir Walter Scott of the library which belonged to the Waldies. It was then located in the “Mansion House,” Kelso, where the family resided when in the locality. When at their English property, “Forth House,” Newcastle-on-Tyne, was their home. The nucleus of the library was formed by Charles Ormston, into whose family the Waldies married, and it was on its coming into the possession, about 1780, of Mrs Waldie, or as she was known from her acts of kindness “Lady Waldie,” that considerable increase was made to the library. During the lifetime of her son, Mr George Waldie, the present residence of Hendersyde was built under the superintendence of his son Mr John Waldie, and it was to Hendersyde that the library

was transferred. The property is now in the possession of Sir R. J. Waldie Griffith, Bart.

The name of Waldie was of very considerable standing among the rentallers, feuars, and landholders of the town of Kelso, and it has been always understood that their first settlement in this country was occasioned by the religious persecution in the Pays de Vaud; but this may be only conjecture, for long before the Reformation the Walthos or Waldies were settled in Roxburghshire. From the year 1508 to 1535 Thomas Waltho or Waitto practised as a Papal notary in Kelso, and several of his notarial instruments are still in existence in the charter chests of the Border families. He was, of course, a Papist, and appears to have been the professional agent and notary of the Abbey for many years, for many of his deeds are dated "Apud Monasterium de Kelso." His connection with the Abbey may account for the various tenements and lands which were held by the family under the Abbots.

George Waldie of Hendersyde was born 9th April 1755, and on being served heir to his father in 1781, greatly improved his estates in the parishes of Kelso and Ednam. As has been said, he erected the Mansion House of Hendersyde and extended the woods and plantations, greatly adding to the amenity of the property. It was his son John, however, who collected the numerous paintings and articles of vertue, and greatly enriched the already valuable library by many fresh stores.

The Mansion House was begun by George Waldie in 1803, and was then 73 feet long and 44 feet wide, but later additions have made it a much more imposing building. The two principal fronts faced south-east and north-west. Some of the sizes of the apartments will give an idea of the size of the building.

	ft	ft.
Entrance Hall	32	$\times 17\frac{1}{2}$
Lower Ante-Room	$18\frac{1}{2}$	$\times 12$
Small Drawing-Room	26	$\times 18\frac{1}{2}$
Large Drawing-Room	40	$\times 27$
Large Library	38	$\times 18\frac{1}{2}$
Dining-Room	36	$\times 21$
Small Library	19	$\times 18\frac{1}{2}$
Lower Gallery	36	$\times 8$
Great Staircase	20	$\times 13$

	ft.	f.t
Back Staircase	20	× 9
Upper Gallery	32	× 8
Upper Ante-Room	19	× 18½

On 24th February 1835 Sir Thomas Brisbane of Makerstoun indicated the longitude, latitude, and altitude as follows :

Longitude	2° 25' 0"
Latitude	55° 36' 43"
Elevation above the sea	207 feet
Elevation above the Tweed	114 „
Surface of the Tweed at Hendersyde Park, lower than at Kelso Bridge	4 „

At a later date, 15th May 1835, Sir Thomas (on a fine dry day) made the height above sea-level 186 feet, and above Tweed level 119 feet.

In the library there are about eighteen thousand volumes, and these are classified into books dealing with Topography and Travel, History, Biography, Fine Arts, Poetry, Dramatic Literature, Science, Religion, Fiction, and General Literature.

The library proper is a large room facing the south-west, and round its four sides are bookcases filled with selections from the above subjects. In the small library and in the other public rooms are to be found the surplus books, each bookcase, or section thereof, dealing only with a particular subject, so that with the catalogue in hand, identification is a comparatively easy matter. As can be supposed, the major portion of the volumes were published in the late eighteenth or early nineteenth centuries, and among them are very many which could not be purchased at the present day. If an opinion were offered, it might be said that the sections dealing with Fine Arts and Dramatic Literature are the strongest. Most of the books are in the English language, but many are of French and Italian origin. Mr Waldie was a great continental traveller and was continually adding valuable acquisitions both in art and literature. He had many friends in the world of art, and was fortunate in receiving from them many tokens of their esteem.

As can be supposed, many of the presentation copies are now of great interest and value, both on account of the works them-

selves and the eminence of the persons by whom they were presented.

The Reminiscences of Sir Thomas Brisbane was privately printed in Edinburgh, and presented to Mr Waldie by Lady Brisbane. *Eduardo e Christiana* was a gift from His Imperial and Royal Highness the Duke of Modena, while the *History of Hawick* was gifted by Lord Minto. The valuable *Registrum Cartarum Abbacie Tironensis de Kelso* was a presentation copy from the Duke of Roxburghe, and a book of a similar nature, *Liber Sancte Maria de Mèlros*, came from the hands of the Duke of Buccleuch. Cardinal Acton presented two works, *Storico Liturgica Opera* and *Descrizione delle Funzioni della Settima Santa*. *The Natural History of Deeside and Braemar* was presented to Mr R. Griffith by Prince Albert.

The following contractions are used for the different rooms :—

C.A. . Chart Apartment.	S.C. . Staircase.
C.R. . China Room.	S.D.R. Small Drawing-Room.
E.H. . Entrance Hall.	S.L. . Small Library.
L.A.R. Lower Ante-Room.	U.G. . Upper Gallery.
L.D.R. Large Drawing-Room.	U.S.C. Under Staircase.
L.L. . Large Library.	Y.R. . Yellow Room.
O.S.C. Opposite Staircase.	

HENDERSYDE PARK.

LIBRARY CATALOGUE.

Index to Subject Portion.

Amusements and Sports.	Music.
Biography.	Poetry.
Border Literature.	Presentation Copies.
Dramatic Literature.	Reference.
Dramatic Literature, Appendix.	Religion.
Fiction.	Science.
Fine Arts.	Topography and Travel.
General Literature.	Waldie Publications.
History.	

At the beginning of each subject, particulars are noted of the rooms and bookcases in which books bearing upon that subject are located.

The following contractions are used for subjects :

A.	Amusements.	M.	Music.
B.	Biography.	P.	Poetry.
B.L.	Border Literature.	R.	Religion.
D.L.	Dramatic Literature.	Ref.	Reference.
F.	Fiction.	S.	Science.
F.A.	Fine Arts.	T.	Travel.
G.L.	General Literature.	W.P.	Waldie Publications.
H.	History.		

The following abbreviations refer to the sizes of books :

		ins.	ins.			ins.	ins.
Dy. 48mo	.	.	$3\frac{3}{4} \times 2\frac{1}{8}$	M. 8vo	.	.	$9\frac{1}{2} \times 6$
Pt. 32mo	.	.	$4 \times 2\frac{1}{2}$	R. 8vo	.	.	$10\frac{1}{2} \times 6\frac{1}{2}$
Sq. 16mo	.	.	$4\frac{1}{2} \times 3\frac{1}{8}$	Imp. 8vo	.	.	$11 \times 7\frac{1}{2}$
Ry. 32mo	.	.	5×3	Sm. 4to.	.	.	9×7
Ry. 24mo	.	.	$5\frac{1}{2} \times 3\frac{1}{4}$	Cr. 4to	.	.	11×8
16mo	.	.	$6\frac{1}{2} \times 4$	D. 4to	.	.	$11\frac{1}{2} \times 8\frac{1}{2}$
12mo	.	.	7×4	R. 4to	.	.	$12\frac{1}{2} \times 10$
Fcap. 8vo	.	.	$7 \times 4\frac{1}{2}$	Super. Imp. 4to	.	.	$15\frac{1}{2} \times 13$
Cr. 8vo	.	.	$7\frac{1}{2} \times 4\frac{1}{2}$	D. Fol.	.	.	18×11
8vo	.	.	$9 \times 5\frac{1}{2}$	R. Fol.	.	.	19×12

Sm. 4to is a size that is used for the publications of some societies such as the *Proceedings of the Society of Antiquaries*.

Cr. 4to is much in vogue for privately printed Family Histories, etc.

Fcap. 8vo is the full size of the famous Pickering's Aldine Edition of the Poets.

Sizes now are so very arbitrary owing to the development of paper-making machinery that it is almost impossible to give a correct description of the size of a book except in inches.

Mr Waldie, as has been said, was a great traveller, and during his lifetime he kept a journal, which contains a great deal of

interesting information. Italy, France, Germany, the Netherlands, and other parts of the Continent were all visited, and, being a man of shrewd observation and well known to many persons of position in the countries through which he travelled, his reflections are those of the student at first hand. At the time of the Napoleonic Wars in 1815, he had made plans for a visit to the Continent, when he was accompanied by his sisters. Leaving Ramsgate at 3 P.M. on Saturday the 10th of June, the party sailed for Ostend on board the *Dover*, an extra packet, rather small in size. The passage occupied thirty-two hours, and was the longest the master had ever made. As it turned out, the party of travellers was exceedingly fortunate as far as history was concerned, seeing that it was their good fortune to be in the neighbourhood of the Battle of Waterloo.

The following extracts from Miss Jane Waldie's Journal give some interesting particulars :—

“ It was then on Thursday evening the 15th June (1815) that we arrived at Brussels, the day on which hostilities had commenced, by Napoleon's having attacked the Prussians. This alarming news, however, we did not know then, indeed no one did, but not long did we remain in this blissful ignorance, for, looking from our window a few minutes after our arrival, we caught the eye of Major Wyllie who was standing in the Place Royale below, encircled by officers with whom he appeared to be in earnest conversation. The moment he saw us he bowed, and breaking from the friends who surrounded him, flew up the hotel stairs and was in our room in an instant. Quite breathless, with haste he eagerly exclaimed, ‘ Well, you are in for it. You will get it all now,’ and on our anxious inquiries, he proceeded to inform us that the Prussians had that morning been attacked near Charleroi—that as yet all that was known gave reason to believe that it was only a slight affair, though admittedly the commencement of the campaign, and that most probably the British Army would march the next day. The news had been received by the Duke of Wellington not half an hour before, Marshal Blücher's courier having arrived whilst the Duke was at dinner with a party of officers among whom was Major Wyllie, but His Grace was inclined to believe this had been only a feigned attack, and expected to receive intelligence of something more serious in some other quarter. At all events, as the Prussian line had of necessity been very extended before the action, it could not be otherwise than very uncertain in its issue, and Lord Wellington, in spite of this intelligence, was preparing to go to the Duchess of Richmond's ball, which was to take place that evening. . . . While we were absent Sir Neil Campbell came and confirmed the account which Major Wyllie had just given us. He also had been dining with the Duke and had only just left him, hearing we were in Brussels. . . . Never while I live shall I forget the scene that presented itself before our

window. The Place Royale was literally filled with soldiers, troops forming and defiling, baggage carts, artillery waggons, military accoutrements, officers riding about at full speed, chargers neighing, horses trampling, drums beating—in short, a scene of which no description can convey an adequate idea, while in the midst of all, the poor soldiers were taking an affectionate leave of their wives and children, whom they might probably never again behold. We saw regiment after regiment form and march out. The Highland regiments caught our eyes, for at this moment our hearts recognized them for our own countrymen, but so were all the British Army, and we felt it was impossible to be more anxious for one than another. . . . Whether from a wish of not alarming the inhabitants, or some other cause, the Duke of Wellington not only went to the Duchess of Richmond's ball himself, but told his officers they might go likewise, and when the second dispatches from Blücher, which found His Grace at the ball, arrived, all the officers were dancing. I fancy the scene would have been irresistibly ludicrous had the confusion which ensued been created by any other cause. As it was, the gentlemen without any ceremony abandoned their partners, and ran off to prepare for the orders which were instantly issued—an immediate muster in marching orders for the troops. I was told by a gentleman who was near the Duke when he received these latter dispatches, that nothing could be more interesting than the changes of his countenance during their perusal. He had been in remarkably good spirits and his countenance suddenly altered from liveliness to intense thought. It was nothing like despondency, or even apprehension—it was the total absorption of mind—the utter forgetfulness of the place, the ball, the people, and everything around him, that were so striking. He read over several passages two or three times, and was heard occasionally to repeat to himself in broken sentences 'Marshal Blücher thinks,' 'It is his opinion,' etc., etc. He went off at eight next morning, attended by his generals and personal staff. I was told by Sir Neil Campbell that he never saw him in such high spirits. It seemed as if he had known the glory he was to acquire in this campaign. He left word he would return to dinner: to dinner, however, he did not return, nor all that day. The army was expected to halt at Waterloo, a village about ten miles from Brussels on the Namur road."

From the Journal it seems, as can be readily conceived, that all sorts of rumours were prevalent. The Prussians had been defeated, the French had been driven from Charleroi, and that the British Army were returning to Brussels. Another source of excitement was the statement made by Buonaparte that he would sleep the following night at Lachen, the palace of the King of Holland, a league beyond Brussels on the Antwerp road. As he never made such threats and failed to fulfil them, the chances were that on this occasion the words would be verified, as it was confidently stated his forces were double those

of the Allies. Poor man ! this was to be the exception which would prove the rule.

To return to the Journal.

“ A letter from Lord Conyngham contained a report that the enemy had been beaten, that Wellington and Blucher had effected a junction, and that a general engagement would take place on the following day.” And then came news of the battle : “ The victory was glorious but the carnage was dreadful, and everyone who had friends trembled for their safety amidst this terrible and promiscuous slaughter. Included in the list of killed and wounded general officers were the brave General Picton, known in the army by the name of the fighting general, and General Ponsonby killed, and to this were added an immense number of general officers wounded ; and we also heard that of the Duke of Wellington’s personal staff scarcely one remained untouched. It was said to have been against the advice of all his generals that Lord Wellington hazarded a battle with such an appalling inferiority of force. About eight in the evening Mr Hay of Dunse Castle came to Antwerp. He came to break to Lady de Lancy the terrible intelligence of her husband’s death, but he was too late, she knew it already. He was half distracted ; his younger brother in a regiment of light dragoons was amissing, his horse had returned without him in a charge, and it was feared he was killed. Mr Hay had been in the battle the whole day, and all that morning had been employed in searching the field for his brother’s body, which had not yet been found, though they scarcely ventured to hope he was a prisoner. He described the carnage as dreadful beyond conception, never had there been so sanguinary an action. The field was literally covered five or six deep with killed and wounded. ‘ Do not ask me,’ said he, ‘ who is killed or wounded ; ask me rather who is not wounded or dead.’ . . . I believe I have a natural taste for everything connected with the art of war, independent of the peculiar situation in which we were then placed. For long before we went to Flanders and made what may be termed our first campaign I loved to hear of battles, and comprehended with the utmost facility those confused and difficult details of our victories in Spain, which the Duke of Wellington’s dispatches gave to the public, and which have puzzled the brains of many a grey-haired veteran.”

The section dealing with History contains many useful volumes. Local histories are kept well in evidence, those bearing on Northumberland and the Borders being good books of their kind. Note may be taken of the *Border History of England and Scotland*, Ridpath (1776), the author of which was parish minister of Stichill, near Kelso. *Europe during the Middle Ages*, Holland, 1819, and 8vo edition in three volumes and a ten-volume edition of *Alison’s History of Europe* (1842) deal in a comprehensive manner with this subject, while France has its importance narrated in the *Histoire de France*, Anquetil

(1818-9), 13 vols., 8vo; and in a work of a similar title by Velly (1709), 24 vols., 16mo. Bishop Burnet's *History of His Own Times* (1818) refers to the period between the restoration of Charles II. and the Peace of Utrecht. *De la Littérature du midi L'Europe*, Sismondi (1819), has interests of its own, while *Précis de l'Histoire Universelle*, Anquetil (1811), 12 vols., 12mo, deals with the vicissitudes of nations from the earliest times to the end of the eighteenth century.

The history of the Jacobite rebellions in Scotland appeals very much to Scotsmen, and there is a copy of the *History of the Rebellion of 1715*, Rae (1746). Of this stirring time rather an interesting story may be told. It is narrated by one of the Ormston family in some MS. notes of their clan. "In the rebellion of '15 my aunt had a very narrow escape. The principal rebel chiefs took up their quarters at my father's house, and held their council in one of his rooms, in which there was a concealed bed. She was then a young girl and was indisposed, and had lain down in that bed where she could hear all that passed though she had no such design. It can be imagined that if she had discovered herself by any noise they would either have taken her with them or killed her, as they were then debating on their line of march into England, and would not have had it known upon any account."

The '45 has also been recorded. There is one 4to volume, Home, 1802; *Jacobite Memories of the Rebellion of 1745*, Chambers (1834), and *Memoirs of the Rebellion of 1745*, Chevalier Johnstone (1821). It is well known that in their southern march the Jacobite forces passed through Roxburghshire. Quoting again from the notes already referred to, we find it recorded: "The inhabitants of Kelso, to shew their loyalty to the government, cut ditches in the north road, and planted *chevaux de frise* when they heard the rebels intended coming here, and after they had performed this foolish parade of opposition, the principal gentlemen of the country fled to England. The rebels, exasperated at this discovery of the principles of the inhabitants, threatened them with fire and sword. I have heard my father say that the Pretender sent for my grandfather to the Town's House, hearing he was the only gentleman left in the place, and threatened him so dreadfully that, being then an old man, he never recovered the shock,

but gradually declined from that time." From another source it is learned that the only plunder which the rebels procured from the estate was a few half-starved sheep, oats and oatmeal. "They shot the sheep, drank the warm blood, skinned and carted them off; the oatmeal they compelled the women of the farms to make into cakes, which they ate half-baked off the fires as made; and tradition states that some of the plunderers were lost in the Moss at Kelso Spittal, now a part of Ferneyhill Farm. The Tan-law, a part of the policy of Hendersyde and entirely covered by wood, was at that time a waste, and on it was established for some weeks one of Prince Charlie's Highland pickets."

There are several works dealing with Roman History: *Decline and Fall of the Roman Empire*, Gibbon (1781), being represented by 12 vols., 8vo. Scottish History has an important place, there being such works as *General History of Scotland*, Guthrie (1767), 10 vols., 8vo; *History of Scotland*, Buchanan (1752); Pinkerton (1797), 4to, 2 vols.; Tytler (1845), 8vo, 7 vols.; and *Orygynale Cronykil of Scotland*, Wyntown (1795), 4to, 2 vols.

In Topography and Travel there are something like two thousand four hundred titles of the books dealing with this classification. It may be said that all the countries of the globe are brought under review in one book or another. Many deal with Africa, and among those is an interesting one, *African Sketches*, which derive perhaps as much of their attraction from the fact of the author—Thomas Pringle—having been a native of the Border district, his birthplace being at Blakelaw, a short distance out of Kelso. A copy of a French book giving the author's impressions of a journey through Great Britain is valuable as having at one time belonged to Mr Canning, while an Italian guide-book bears that "it was given to me by Mdme La Baronne de Recke, at Castellomare near Naples, August 21st, 1823." *A Voyage to the Sandwich Islands* (1826) is compiled from the journals of the officers and other gentlemen who accompanied Lord Byron on his voyage. In these days when the preservation of ancient monuments is being considered, *A Journey through Scotland and the North of England* (1726), containing many illustrations of old monuments, recalls the history of these old landmarks. *Travels*

and Adventures, Singleton (1737), claims attention from the inscription "William Ormston's Book: gifted by his grandfather on December 25th, 1738, No. 38." In view of present interest in Arctic exploration, the Journals of Parry's Two Voyages (1821-24) to the North-West Passage are a reminder of the early explorers, while a *Second Voyage round the World*, Cook (1777), and *Voyage round the World* (1707), descriptive of Captain Dampier's expedition to the South Seas, along with *New Voyage round the World*, Kotzbue (1830), are full of incidents of the explorers' daring and quest after new worlds to conquer. A fine set (18 vols., 8vo) of *Voyages and Travels*, Ed. Kerr (1811-24), gives a general history, arranged in systematic order, of the origin and progress of navigation from the earliest ages to the beginning of the nineteenth century. *Voyage towards the South Pole*, Weddell (1825), shows that at that time the Antarctic regions were not neglected by explorers.

There are also fine sets of Pennant's *Travels*, Pinkerton's, Hakluyt's, and Churchill's *Collection of Travels*, and works of French and Italian authors, many of them being beautifully illustrated, while in others the engravings, somewhat quaint in design, are not lacking in vivid representation.

Literature dealing with the Drama is well represented in the library. Of that referring to Shakespeare there are some forty works by different authors. Boydell's edition in 9 vols. (folio) is a very fine specimen, while attention may be drawn to the Lansdowne edition (1852) containing a portrait after Droeshout by Robinson; the peculiarity of this edition is its being printed in red and black ink, the names of the characters being put at full length in the middle of the page. There is a 21-volume edition, 12mo (1803), containing the notes of Dr Johnson, and a history of the stage by Malone. A folio edition, published in 1807, is according to the true original printed by Isaac Jaggard and Edward Blount in 1623: it is a facsimile of the first folio edition. A book by James Boaden, 8vo (1824), is an inquiry into the authenticity of various portraits of Shakespeare; it is illustrated by five accurate and finished engravings from such originals as were of undisputed authority. An 18mo edition (1803), 9 vols., is printed from the text of the corrected copy left by George Steevens. Rather an interesting volume is *Shakesperiana*, 12mo (1827), which is a catalogue of all the books, pamphlets, etc.,

relating to Shakespeare, to which are subjoined a list of the early quarto editions, the prices at which many copies have been sold at public sales, along with a list of the leading editions of Shakespeare's works. Among the translations of Shakespeare may be mentioned those of Leoni, 4 vols., 8vo (1815), and Guizot, 13 vols., 8vo (1821).

The Rise, Progress, and Termination of the O.P. War (Tegg) consists of poetic epistles referring to the war for old prices at Covent Garden Theatre in 1809-10. A work of some interest and value is *Complete History of the English Stage*, by Charles Dibdin, 5 vols., 8vo (1800). It is introduced by a comparative review of the ancient and continental theatres, the work being the result of observations extending over a period of thirty-five years. *Répertoire Général Théâtre François*, 67 vols., 16mo (1818), contains French plays, while the Italian is represented by *Nouveau Théâtre Italien*, 10 vols., 12mo (1753). *Apology for the Life of G. A. Bellamy*, 3 vols., 12mo (1785), includes the original letter to John Calcraft advertised to be published in October 1763, but which was suppressed. The *British Theatre*, Inchbald, 25 vols., 12mo (1808), is a collection of the plays produced at the Theatre Royal, London: it is printed from the prompt books. *Apology for the Life of Colley Cibber*, 8vo (1822), forms a complete history of the stage for forty years. *Professional Life of Charles Dibdin*, 2 vols., 8vo (1803), contains the words of 600 songs selected from his works. A volume with some interest is *Letters respecting Edinburgh Theatre Royal*, written by "Plain Thomas" to the Editor of the *Scots Chronicle* during the years 1797-1800; while another is to be found in the *Edinburgh Theatrical and Musical Review*, being the issues of that periodical from 15th July to 31st December 1823.

Under the class designated as General Literature are those books, the contents of which come under no specific subject with which they could be very well classified. Their range, therefore, embraces a very wide area, but among them are some which contain some exceedingly interesting information on the matters to which they severally relate.

Aedes Althorpiana refers to an account of the mansion of the Spencer family at Althorp, and gives a detailed account of the books and pictures at that place: a supplement is entitled *Bibliotheca Spenceriana*, and it contains a descriptive catalogue

of the books printed in the fifteenth century. *The Compleat Angler*, by Isaac Walton, although only a third edition, takes us back to 1775, the year of publication. In *Antiquities Vulgares* is to be found the antiquities of the common people with a narrative of different ceremonies as existing in 1725. The proceedings of the Society of Antiquaries, Newcastle-on-Tyne, are published under the title *Archæologia Aeliana*, and contain much that is of interest on these lines. In the *Bibliographical Decameron* will be found dissertations on illuminated MSS. and subjects connected with engraving, typography, and bibliography, while in the *Letters of Earl Hertford* will be found examples of the style of Horace Walpole. To anyone desirous of obtaining information regarding the public life of persons in the latter part of the eighteenth and the beginning of the nineteenth centuries, a collection of essays under the title of *The Spirit of the Public Journals* will afford the information required.

An interesting book published in 1784 gives *The Concise History of Knighthood*, and contains, among other things, information regarding the ceremonies used at duels, combats, jests, and tournaments. Isaac D'Israeli's *Curiosities of Literature*, first and second series—the first, two volumes, the other three volumes—are found in this class, and also many other volumes, the contents of which take the form of essays or reprints of lectures.

On examining the works relating to Poetry, we find *Favorite Old Scottish Ballads* (1790), 2 vols., 18mo, which includes "Chevy Chase"; and in a 4to volume, bound up with other pieces, is a copy (first edition, 1748) of the *Castle of Indolence*, by James Thomson, the Border poet, who was born at Ednam.

There is a 4to edition of *The Seasons*, published in 1730, and a folio published in 1797. The latter contains engravings by Bartolozzi and Tomkins from original pictures painted for the work by W. Hamilton, R.A.

Lord Buchan was a great admirer of Thomson. In the letter which follows, the Temple is one which was to be erected at Dryburgh, and by which the memory of Thomson was to be perpetuated.

My dear Sir,—I wish to know whether the little model of Thomson the poet's chair in which I sat at the commemoration in the year '90 when we crowned the poet's bust on Ednam Hill, be come to hand as Smith is about to begin his operations relating to the statue of Burns, who is to be repre-

sented sitting in the chair in the Temple. (W. Elliot of Minto was so good as to say he would take charge of this business.)

Lady Buchan and Miss Fraser join in kind compliments to Mrs Waldie and all the family at Hendersyde Park, and I am, with regards,

Yours always,

BUCHAN.

DRYBURGH ABBEY,

June 24, 1812.

Ancient and Moderne Emblems, Wither (1635), 4to, 1 vol., is inscribed as being a perfect copy, and it is noted that an imperfect one brought £6, 6s. at a sale in London. Milton's *Poetical Works* (1749) occupy 3 vols., la. 4to. They contain the notes of various commentators, as well as a life by Bishop Newton. The *Works of the British Poets*, edited by Anderson, 1794, 8vo, 13 vols., and *Works of the English Poets from Chaucer to Cowper*, edited by Chalmers (1810), 21 vols., 8vo, are very complete editions of the poets, the latter including translations, edited with Dr Johnson's prefaces. Sharpe's edition of the *British Poets from Chaucer to Cowper* must not be omitted. It was published at Chiswick, and comprises 100 vols., 12mo (1822). Burns is represented by Currie's edition (1803), 5 vols., and Allan Ramsay's *Gentle Shepherd* (1790) has a version attempted in English. Percy's *Reliques of Ancient English Poetry* (1794), 8vo, 3 vols., is the same edition as that which entranced the boyhood of Sir Walter Scott, formerly in Kelso Library, which has lately been dispersed. The works of Italian poets are found in a very fine edition (1784-1802), 12mo, 56 vols., while those of Michael Bruce have 1796 as the year of publication. The poetical works of Sir Walter Scott (1821), 11 vols., 8vo, include the *Minstrelsy of the Scottish Border*, which, as it will be remembered, was first printed and published by Ballantyne in Kelso. Barbour's *The Bruce* appears in a 3-vol. edition, 8vo (1790), and contains notes and a glossary by Pinkerton. *Sir William Wallace*, by Blind Harry, is an edition in 24mo, 3 vols. (1790), and is noted as being translated from the MS. copy in the Advocates' Library, under the eye of the Earl of Buchan, and now printed for the first time according to the ancient orthography.

The volumes devoted to Fine Arts total something like twelve hundred, and are located chiefly in the large library, large drawing-room, and china room. The Portraits of

Illustrious Personages in Britain, 4 vols. fol., are proof engravings and very valuable.

A unique volume is one which was bought at the Strawberry Hill sale, when the collection made by Horace Walpole was dispersed. It is a large folio, and consists of sketches by friends of Walpole, and among whom may be mentioned the Countess of Carlisle, Lady Louisa Greville, Lady Cunningham, Lady Dorothy Saville, Viscount Mineham, Lady Elizabeth Montague (afterwards Duchess of Buccleuch), Lord Cardigan, Countess of Lincoln, Sir William Hamilton, Countess of Drogheda, Lord Grantham, Mr John Clark, Edinburgh (1758), Lady Annabel Polwarth, the Earl of Sunderland. The titles at the foot of the subjects were printed at the private press at Strawberry Hill. Altogether the collection is practically priceless, as it is impossible to have such another unique collection. The *Gallery of Cosmo III., Duke of Florence*, is described by Mr Henry G. Bohn as the first specimen of an illustrated gallery, and of which he had never seen but one copy, and he questions whether more than one copy exists in this country. Seven volumes by William Beattie, 1a. 4to (1838-44), illustrate the history of the Danube, Scotland, Switzerland, containing many engravings. Dr Burney's *General History of Music*, 4 vols., 4to (1789), treats of the art from the earlier ages, and Winkelmann's *Histoire de l'Art*, 3 vols., 4to (1794), is a critical account of the remains of ancient art. The works of Piranesi are to be found in 23 vols., med. folio (1761-85), published in Rome; a complete set runs to some 29 volumes. Hogarth's complete works are in a series of 150 steel engravings from the original pictures. Many valuable engravings are to be found in the portfolios, among which may be mentioned eight of a series of nine, by Walpole, after Raphael; pen and ink sketches of the Field of Waterloo, by Miss Jane Waldie; full-length portrait of Mrs Siddons, after Lawrence (1810); four engravings by Fabri, after Raphael, in the Vatican; The Last Supper, after Da Vinci, by Rainaldo; Aurora, after Guido, engraved by Rainaldo: a rare proof of this plate was sold for £110, 5s. Mention may also be made of the copies of the old German masters, Volpato's *Museo Pio Clementino*, and many other rare examples in the world of art.

In the sections devoted to Dramatic Literature and Fine Arts there are many biographical notices among the books entered

under these classifications. Where they are of notable interest they are included among Biography.

The lives of Abelard and Héloïse are written by the Rev. Joseph Berrington, and their letters are also given in a separate volume. Cardinal Alberoni and the Emperor Alexander I. of Russia each have their biographers. A quarto volume, published in 1805, gives the history of the College of Arms, and in so doing includes the lives of the kings, heralds, and pursuivants from the reign of Richard III. to the end of the eighteenth century. The Baillie family are mentioned both in correspondence and in a memoir. There are several Biographical Dictionaries containing references of interest. Lord Byron's life is fully dealt with, and the life-work of Canova is not lost sight of. In the life of Colley Cibber is to be found a complete history of the stage for forty years. In a series of twenty volumes Mirabeau contributes memoirs of contemporary writers. The outstanding features of Cromwell's life are mentioned by two or three different biographers, while the wit and humour of John Philpot Curran forms the subject of a memoir by O'Regan.

French authors are numerous, and subjects undertaken by them are skilfully handled. Galt and Garrick are not neglected, and Goldsmith, Gray, and Handel have each their memorial volume. The stirring times of the Jacobites are included in biographies of the period, and the life and genius of Dr Johnson are fully narrated.

Collections of letters, generally with biographical notices, are not infrequent, and the different features of history as written in the lives of the Louis' of France are fully described. Madame de Maintenon is not forgotten, and the stirring incidents in the career of the Marlborough family have been fully recorded. Poets, musicians, and dramatists at varying periods are referred to, and painters and their works are responsible for many volumes. Sir Walter Scott and Shakespeare have been fruitful subjects for biography. The Napoleonic history has been approached from many sides. The *Life of Madame de Pompadour* contains a *précis* of the remarkable events at the Court of France during the reign of Louis XV. In a set of seven quarto volumes containing *An Historic Gallery of Portraits and Paintings*, is to be found a brief account of celebrated men, 284 portraits, 182 pictures, 37 sculptures, and 7 cartoons of Raphael.

It is inscribed "Large paper proofs, very fine copy, sub. £36, 15s. in boards."

In 1859 the following summary of books was noted :—

Entrance Hall	40
Large Library	7548
Large Drawing-Room	767
Lower Ante-Room	562
Small Drawing-Room	1218
Small Library	2581
Upper Staircase	446
Lower Staircase	759
Upper Ante-Room	246
Upper Gallery	1702
Mr Waldie's Bedroom	347
Lower Gallery Closet	16
	<hr/>
	16,232

Since that date considerable extensions have been made, and before and during the compilation of the extended catalogue (1907 *et seq.*) by the present writer, additions of modern literature have been frequent.

A LINK WITH THE 'FORTY-FIVE.

Mr J. Lindsay Hilson's grand-uncle, George Hilson, who died in 1884, left a memorandum in 1871, from which the following is extracted : " James, my grandfather, born about 1732, died in 1810. He told me he was 13 years old when the Pretender with his troops entered Jedburgh in 1745. All the men, who were opposed to the rising, left the town to avoid being compelled to join the rebels, but, as he was a boy, he, with the curiosity of his age, made his way down to Bongate and walked alongside of the Prince and his troops as they came up, and entered the town by the Cannongate, that being the only bridge over the Jed."

THE INSTITUTION OF MR ANDREW STEVENSON. THE KIRK OF DUNBAR, 1639.

By WILLIAM DOUGLAS.

IN a vellum-bound volume, with an almost illegible inscription on its cover, which may be read as "J. Dick aught this buik," is a series of four documents. These refer to the appointment in 1639 of Mr Andrew Stevenson as minister to the parish kirk of Dunbar. The book contains some 350 closely written pages, in the small old handwriting of the early seventeenth century, and is an excellent example of the "style-books" compiled by notaries and lawyers for their guidance in drafting charters, sasines, and other legal writings. Most of the specimens given are in blank form, with the names of people and places omitted, but there are some exceptions, and among these are the four which refer to Mr Stevenson's appointment.

The first records that on the 23rd November 1639 the Earl of Roxburghe presented the office of the ministry of the kirk of Dunbar to Mr Andrew Stevenson, a regent of the college of Edinburgh. We also learn from the tombstone erected to Mr Stevenson's memory by his son that he had been for thirty years "a famous professor of philology and philosophy in the college of Edinburgh," and this too before he was appointed to Dunbar, where he subsequently served for twenty-five years. He was born in 1588 and died in 1664. His tombstone was placed in the wall, on the right of the door leading into a roofed aisle on the south-east side of the old collegiate church of Dunbar, and a translation of the Latin inscription is given in Miller's *History of Dunbar* (1830), p. 203.

The date of this presentation recalls a time of great unrest in the Church of Scotland. Charles I. was imposing his will on the clergy, and on the 23rd of July 1637, in St Giles's Church, the stool of the traditional Jenny Geddes went flying

at the head of the presiding Dean with the famous imprecation of "deil colic the wame of ye, ye false loon, wilt thou say mass at my lug." The struggle between the National and the King's Covenants was still in progress, and the vacancy which Mr Stevenson filled had arisen out of this disturbance. Mr William Maxwell, who had been presented by the Earl of Roxburghe in 1635, was on 3rd January 1639 "deprived by the Commission of Assembly for erroneous doctrine, meddling with the poor's box, tyrannical behaviour to his parishioners, in urging their conformity to the Articles of Perth, declining both the Assembly and Presbytery, and appealing to His Majesty" (Scott's *Fasts*).

It is also interesting to note that the examination of the clergy's qualifications at this time does not seem to have been very exacting. The scandalous abuse of conferring benefices in the pre-Reformation Church on men ignorant, illiterate, and of loose moral character, and on children yet incapable of reasoning, which had been the chief cause of its downfall, had been borne in mind by the founders of the Reformed Church. It is stated in the *First Book of Discipline* that the dearth of "godlie and learned men" could not justify the admission of incompetent persons to the ministry. And in March 1574/5 the General Assembly, considering that most of the learned commentaries on the Scriptures are in Latin, resolved that, henceforth, only those should be admitted to the ministry who have "understanding in the Latine tongue and are able to interpret the comentares wrytin in the same language and speake congruous Latine." The only exception to this rule was in favour of those who, by "thair singular graces and gifts of God," were found on examination by the General Assembly to be able to exercise the office without a knowledge of "Latine" (Dr Hay Fleming, *The Reformation in Scotland*, p. 522).

All that was asked of the Presbytery of Dunbar, seeing that the patron of the living understood that Mr Stevenson was sufficiently qualified, was to try and examine the qualification, literature, and conversation of the said "Mr Andro Stevinsoune," and if he be found apt, able, and sufficiently qualified to use and exercise the office of ministry, to authorise their ordinary collation and testimonial of their admission, and to give him institution as well as to receive from him his oath acknowledging the King's authority.

By this we see that while Mr Maxwell had lost the charge through conforming to the King's commands in opposition to those of the Assembly, his successor's appointment depended on taking the oath to acknowledge "his hines authority." A truly anomalous state of affairs! It is not shown what pressure had been brought to bear on the Earl of Roxburghe to induce him to make this new presentation, but as he was a strong King's man, we can easily imagine that it would be distasteful to him. He was one of those who had voted for the Articles of Perth in 1621, had been present when the riot took place in St Giles's Church, and was with the King at Berwick when the "Pacification" was signed in 1639.

The gleib land referred to in the Instrument of Sasine as "lyand at the bak of the kirk-yearad upoune the west syde therof" was sold many years ago to, among others, the North British Railway Co., and the present station is built upon its site. The sum realised, some £2500 I am told, was invested in heritable bonds and brings in annually a handsome sum to the present incumbent.

The memorial stone erected to Mr Stevenson seems not to have been preserved when the old collegiate church was pulled down to make way for the present church of Dunbar now built on its site.

The other three deeds relate to his institution on the 19th of December 1639.

(1) The first deed is the one of presentation. It records that "Us, Robert erle of Roxbur^e lord Ker of Cessfurde and Cavertoune lord prive seill and undoutted patrone of the paroch kirk of Dumbar personage and viccarage therof," understanding that "Mr Andro Stevinsoune" is sufficiently qualified, present him to "the kirk of Dumbar personag and viccarag therof and to the constant and locall steipand modifeit and assignit to the minister servinge the cure at the said kirk, and to the manse gleib and kirk lands of the said kirk of Dumbar, now vacand in our handis and at our gift and presentatioune be dispositioun and depravatioun off Mr Williame Maxweill lait persoune and vicar off the personag and vicarag or uther wayis whatsumevir. Requyring therfor the moderator and brethren off the presbytrie off Dumbar to try and examine the qualificatioun, literatur and conversatioun off the said Mr Andro

Stevinsonne, and if he be found apt abill and sufficiently qualifeit to use and exerceis the office of ministerie at the said kirk, to authorize him with thair ordinar collatioune and testimoniell off thair admissiounne to the said kirk personage and viccarag thair of and to give him institutionne off the samyne, and to receav his aith for acknowledging his hines authority." And if it be found that he is sufficiently qualified to grant him a testimonial to that effect and to give him institution.

(2) The second deed is the Testimonial of admission granted by the Moderator and brethren of the Presbytery of Dunbar on the 12th December 1639, and it narrates that they "have takine speciall tryall off the qualificatioune literatur and conversatioune off the said Mr Andro Stevinsonne for the serving the cur at the said kirk and hes fund him apt abill and sufficiently qualifeit to use and exerce the offic off ministerie at the said kirk," and have admitted him to the said kirk for all the days of his lifetime. They also "Willis and desyns our weil belovit brother Mr John Daniell [Dalzell] minister at Prestounekirk to pas to the said parish kirk of Dumbar and there to give the said Maister Andro lawfull institutionne off the kirk off Dumbar &c. and to put him in reall and full possessiounne off the samyne and plac him in the pulpit off the said kirk and delyvering to him the buik off God callit the Byble with the keyis off the said kirk doris and with all utheris solemniteis useit in sick lyk caices."

(3) The third deed is Mr John Dalzell's Testimonial upon the above, granted on the 19th December 1639, and narrating that he has given Mr Andrew Stevenson "lawfull institutionne of the kirk of Dumbar, &c., and did put him in reall possessiounne off the samen to be bruikit be him during all the dayis of his lyfytyme, be placeing him in the pulpit off the said paroch-kirk and delyvering him the buik off God callit the Bybill with the keyis off the kirk door in his hand, and delyvering him earth and stoune off the grund off the gleibland thair of."

(4) The fourth deed is the Notarial Instrument of Sasine, and it runs as follows:—

" At the kirk of Dumbar the 19 day of
December 1639 yeires.

" The quhilk day in presence of me notar publict and witnesses underwritten. Compeirit personalie maister Johnne Dal-

zell minister at Prestounne kirk moderator of the presbytrie of Dumbar. And past to the kirk of Dumbar and pulpet within the same, and thair after divyne service done be him within the said kirk, the said Mr Johne haveing in his handis ane presontatioune beiring that ane noble erle Ro^t erle of Roxbur^e &c. be his lettres of presentatioune subscrivit with his hand of the date the 23 day of Nor laist by past in this instant zeire 1639 hes presented Mr Androw Stevinsone ane of the regentis of the colledge of Edinburgh, to the kirk of Dumbar parsonage and viccarege therof, and to the constant and locall stipend modefied and assignit to the ministers serveing the cure at the said kirk, and to the manse gleib and kirklands of the same, requyring the moderator and bretherene of the presbytrie of Dumbar, to try and examine the qualificatioune literatour and conversatioune of the said Mr Androw Stevinsone, and if he be fund apt able and sufficientlie qualified to use and exerce the office of ministrie at the said kirk, to authorize him with ther ordinar collatioune and testimoniell of thare admissiounne to the said kirk parsonage and viccarege thareof and to give him institutiounne of the same, and to receave his aithe for acknowledging his majesties authoritie, as the said presentatiounne of the date fairsaid at mare lenth beires. As also haveing in his handis ane edict granted and given out be the said moderator and remanent bretherene of the said presbitrie, beiring that thei haveing taiken suff^{it} tryll of the said Mr Androw Stevinsone his qualificatiounne, and that he is able and meit to use and exerce the office of ministrie within the said kirk of Dumbar. Desyreing thairfoir the haill noblemen gentlemen and proschiners, to cum to the kirk therof this present day being the 19th of this instant, and thair if any persone had any thing to object aganes the said Mr Androw hes lyfe conversatiounne or doctrine, that thei wald cum and doe the samine, uther wayes the said moderator and remanent bretherene wald proceid in his admissiounne, as the said edict of the date the tuelff day of December, lawfulie execute and indorseit be Wm. Guild reider at the said kirk, at mair lenthe proportes. And als haveing in his handis ane lettre of admissiounne and collatiounne of the said Mr Androw whereby he wes fund apt able and suffitlie qualified to use and exerce the office of ministrie at the said kirk and is admitted therto, personage and viccarege

therof and locall stipend of the samine manse and gleib and kirklands therof during his lyftyme, conforme to the said presentatioune, as the said lettres of admissioun and collatioun of the date the 19 day of December instant at lenth beires. Thairfoir upone the day and yeir of God foirsaid the said Mr Jon. Dalzell Requyrit furth of the said pulpet, that if thair wer any to object aganes the said Mr Androw Stevinsone wherefoir he aught not to be admitted to the ministrie at the said kirk of Dumbar, that thei wald either now speik or hald thame silent in tyme cuming. And finding na oppositioun in the contra, the said moderator and remanent bretherene and uther pastors, being convenit ther for the tyme, and haveing laid ther hands upone the said Mr Androw Stevinsone and receaved him as a brother in the Lord with thame, conforme to the usuall ordour prescryvit to thame be the discepline of the kirk of Scotland. Immediatlie thereafter the said moderator conforme to the said lettre of presentatioun past to the pulpet agane and gave reall and full institutioun to the said Mr Androw Stevinsone of the same kirk of Dumbar parsonage and viccarege therof constant and locall stipend belanging therto, be delyverie to him furthe of his hand the byble and keyis of the kirk dore. And immediatlie thereftir the said Mr Jon. Dalzell moderator past to the gleib lyand at the bak of the kirk yeard upone the west syde therof and ther gave to the said Mr Androw Stevinsone minister actuall reall and full possessioun of the same gleib and kirklandis belanging to the said kirk, be delyverie to him in his handis earth and stane as use is. Upone the quhilk all and sundrie the premisses the said Mr Androw Stevinsone asked and tuike instruments ane or mar in the handis of me notar publict under subscryveand Thir premisses were done betwixt ane and tua hours affirnoone within the kirk and gleib rexive, foirsaid, day, zeir, month and places foirsaid. In presence of [names not given] witnesses speciallie requyrit and desyrit to the premisses."

THE LAIRDS OF COCKPEN.

By Rev. JAMES FLEMING LEISHMAN, M.A.

RECENTLY there came into our hands a Latin charter * of 1648 under which William, Earl of Lothian, grants to "John David-sone in Hoislaw" and "Andro," *alias* "Dand" Davidson, his son, apparently kindly tenants, along with the customary rights of hunting, hawking, fishing, and digging for minerals, "twa merkland and a half" of his lands, lying within the Barony of Linton and County of Roxburgh. The feu-duty attached is one penny Scots, payable annually at the Feast of Pentecost.

These Davidsons were ancient indwellers. In May 1610 "George Davidson in Hoislaw" is haled before the Presbytery of Kelso for admonition and fine, as "one of the chieff actors" in a Pasche Play, the *Abbot of Unreason*, his part being *Litel Jhone*. Almost within living memory their thatched dwelling stood close to the roadway, alongside that of the Ker-Reads, and within a stonecast of the ruined Tower and Chapel of Hose-law, which crowned a neighbouring knoll, appanage of the Abbey of Kelso since 1421. Their tombstone, as *portioners* of Hoselaw, may still be seen built into the south wall of Linton Church.

The Lothian charter possesses more than parochial interest in view of the fact that one of the two witnesses whose signatures are appended is *Mark Carse of Cockpen*, presumably Charles II.'s boon companion of that name, accredited hero of the well-known Scots ballad *The Laird of Cockpen*, so rich in humour and dramatic force.

The charter is dated at Edinburgh, 9th February 1648, a little less than a year before the execution of Charles I. As a keen loyalist Cockpen fought at the battle of Worcester, 3rd September 1651, and afterwards accompanied Charles II. into Holland, where his skill in music, besides furnishing a means of livelihood, helped to beguile the tedium of banish-

* For this Charter we are indebted to Colonel W. J. Oliver of Lochside, C.B.E., D.L., formerly proprietor of Hoselaw.

ment. The monarch's favourite tune was *Brose and Butter*, and with this Cockpen frequently lulled his royal master to sleep at the Hague. Returning to Scotland after the Restoration, Cockpen found his lands forfeited and all petitions for redress ignored, while on visiting London he was denied an audience. To gain the king's ear tradition says he resorted to a ruse. Changing places with the organist at the Chapel Royal, Cockpen played the proper music till the closing voluntary, when he struck up *Brose and Butter*! The tune, as he had hoped, awakened dormant memories. After divine service the king made his way to the organ loft, where he warmly saluted Cockpen, declaring the "old music had made his heart dance." Mine could "dance also," came the retort, "if only I had my lands back, your Majesty." Shortly afterwards Cockpen was restored to his paternal estate.

The Cockpen family pedigree is somewhat tangled and fragmentary. The *Edinburgh Register of Baptisms* reveals a legal connection, recording the birth of two daughters—Margaret in October 1633 and Mary in September 1650—to Mark Carse (or Cas) of Cockpen, *Writer*, and Margaret Kirkwood. Sir Mark Cars of Cockpen and Isobel Nicolson his spouse married 17th August 1665, have issue Margaret in October 1667, Rachel in October 1679, and William in October 1682.

One writer * finds the hero and heroine of the original ballad in Mark Carse, married July 1679, and his spouse Dame Marion Linton of Barrondale in Newbattle. In 1677, Mark Carse appears as an "elder" at Cockpen. *The Kirk on the Green* was a pre-Reformation fabric, formerly attached to the Abbey of Newbattle, and disused since 1820. Another Mark is served heir to his father "Sir Mark Carss of Cockpen" on 12th March 1693. This at least is certain, that the Carse family were lairds of Cockpen from 1633 till about 1720, when their lands passed into the hands of the Cockburns, forerunners of the Earls of Dalhousie. The Hoselaw Charter concludes: *Coram his testibus Marco Cas de Cockpen et Jacobo broun in Nether Ancrum.*

Lothian.

Mark Cars, Witness.

James Broun, Witness.

* Vide *Scottish Antiquary*, vol. xiv, p. 85; also article by John Romans, *Cockpen Bazaar Book*, 1897.

THE MONUMENTAL EFFIGIES OF BERWICKSHIRE.

By JAMES HEWAT CRAW, F.S.A.Scot.

THE earliest type of monumental effigy in Scotland appears to have shown the figure merely incised in outline on a stone slab. This method, while continuing in use in later times, developed normally into carving in low relief. Both in England and Scotland sculpture in full relief became customary in the thirteenth century, though rare before the middle of the century; and the finest work, as in church architecture, dates from that and the following century.

Where the effigy does not bear a date, this may sometimes be approximately fixed by the form of the letters in the inscription, if any; by the character of the armour or dress; or by ornamental work, such as a canopy, introduced on the stone.

In Berwickshire, effigies are both few in number and poor in execution. Of the destruction of such relics in the past it is naturally impossible to form an estimate. Invaders and raiders from south of the Border were probably more interested in other spoils than in the destruction of such things. It was not, however, invariably so, for Archibald Douglas, Earl of Angus, swore a bloody revenge on the English who had defaced the tombs of his ancestors at Melrose. Not even the fragment of an effigy now remains either at Dryburgh or Coldingham, the chief ecclesiastical buildings in the county.

Of the six surviving effigies only one, at Abbey St Bathans, has any claim to artistic merit. Though much inferior to some of the fine effigies to be found elsewhere in Scotland, the figure of the Abbess is simple and pleasing, and is of considerable interest. The two effigies at Edrom are poorer in execution, but exhibit interesting features in armour and dress. Two examples at St Helens are too much damaged to be of any importance. In one of these the outline of the figure is incised.





EFFIGY OF PRIORESS, ABBEY ST BATHANS.

The last of the effigies to be considered, that at Swinton, is exceedingly crude in execution ; the period to which it should be assigned is doubtful.

So far as the description of these effigies goes, little can be added to what is contained in the *Inventory of Monuments and Constructions in the County of Berwick* ; three descriptions are here quoted in full. As, however, the effigies are not figured in the *Inventory*, the main object of the present paper is to supply this want.

Parish of Abbey St Bathans.

Shortly before 1860 the effigy of a prioress of the Abbey of St Bothans was taken from the north wall of the parish church, into which it had been built. It now occupies a recess in the east wall of the church (Plate VI, and fig. 1).

“ The figure, which is 6 feet long, is dressed in a full tunic or kirtle falling in heavy folds over the feet, but with close sleeves. The hands, which are mutilated, are joined in prayer, and a plain narrow girdle is just visible between the wrists. The neck is covered by a barbe or wimple, the lower edge of which is straight, the upper parts showing folds following the line of the chin. A plain cope-like mantle covers the shoulders and sides of the figure, extending with long vertical folds to the feet ; it is not joined or fastened at the neck. Two veils cover the head and fall in folds on the shoulders, and the under veil, presumably representing linen, shows a crimped edge alongside the plain edge of the outer veil. There are the remains of a crosier lying within the right arm, the head of the crosier being close to the head of the figure and the point resting on a small animal which lies outstretched across the ankles. The feet of the figure are hidden by the folds of the habit, and the head rests on two cushions with short tassels at the corners. The crosier is much broken, but there are indications that the head was crocketed. The middle of the effigy has had a miniature supporting angel at each side ; of these the one on the right is almost entirely broken away, but enough remains of the other to show a girded alb, raised arms, and outstretched wings, indicating that the angels were represented as rising up from beneath the

effigy and supporting it with their backs, wings, and arms. There are no traces of supporters at the head or feet. . . . The date of the effigy is perhaps the last half of the fifteenth century or the beginning of the sixteenth."

Inventory, No. 1.

The breadth of the effigy is $18\frac{1}{2}$ inches, and the thickness $11\frac{1}{2}$ inches, of which the figure is 9 inches and the attached slab $2\frac{1}{2}$ inches. The upper part of the face is damaged, and the effigy has been broken across at two places. A close examination shows that the edge of the outer veil has been crimped as well as that of the inner. The object at the feet has been too much damaged to be recognisable.



FIG. 1.—EFFIGY
IN ABBEY
ST BATHANS
CHURCH.

In several respects the figure resembles an effigy at Tynninghame; the cushions, especially the treatment of the tassels, the hands, the folds of the vestments, and the position of the animal at the feet, are all more or less similar. The last feature has been better preserved at Tynninghame and can be recognised as two quadrupeds. The association of a crosier with the effigy of a prioress is of special interest.

In a charter dated 1478 James III conveyed to the prioress and the convent of St Bothans certain annual rents from tenements in the Brig-gate and Hide Hill and other properties in Berwick-on-Tweed. In the words of the late Mr John Ferguson, "One would like to believe that it is the effigy of the unnamed prioress mentioned in the charter . . . the *dilecta oratrix* of King James III."

This effigy has already been figured by Messrs Macgibbon and Ross, *Eccles. Arch. of Scot.*, vol. iii, pp. 410–411. See also *Hist. Ber. Nat. Club*, vol. iv, p. 167 (1860); vol. xiii, p. 92 (1890); vol. xxiv, p. 292 (1921).

Parish of Cockburnspath.

In the disused graveyard, in which stands the ruined Norman church of St Helens, there lie two effigies, much worn and weathered (Plate VII, A and B).



1' 2"
A.



5' 2" x 1' 4"
B.

EFFIGIES AT ST HELENS.

[*To face p. 78.*]







EFFIGIES OF PATRICK HOME AND HIS WIFE, EDROM.

1. "Some 10 feet south of the west end of the south wall lies a stone 4 feet 8 inches in length by 1 foot 7 inches in breadth, diminishing to 1 foot 2 inches at the foot, upon which is rudely incised the figure of a man with hand clasped across the breast and a sword or dagger at the side."

Inventory, No. 46 (3).

The figure is more probably that of a woman, the foot of the skirt being traceable. The small object at the figure's left side is probably shears. It has at first sight the appearance of the hilt of a sword, but no trace of the blade can be seen.

2. To the south of the church lies an effigy, apparently that of a woman. It is almost unrecognisable and is broken into three pieces. It is of sandstone and measures 5 feet 2 inches by 1 foot 4 inches. The outlines of the face and head-dress, the neck, and the left shoulder and upper arm can be traced. The edge of the stone follows the outline of the figure. The lower portion is suggestive of a skirt, but the feet are broken off and lost. This stone has not before been recorded.

Parish of Edrom.

The two effigies in Edrom parish church (Plates VIII and IX, and fig. 2) lie in a burial vault in the Blackadder Aisle. Their position in the dark, low-roofed vault makes them difficult to examine, being placed on a high sarcophagus measuring 7 feet $1\frac{1}{4}$ inches long, 3 feet 6 inches broad, and 4 feet $2\frac{1}{2}$ inches above a base about 2 feet high.

"Covering the top of the structure is a slab 5 inches deep, with a chamfered edge, whereon lie two detached recumbent effigies of a man and a woman; the man is in armour, with laminated rerebraces and taces, plain unlaminated cuisses, and fluted circular rondelles at the knees and on each side of the cuirass. The head is unhelmeted, the hands folded on the breast, and the feet encased in short pointed solerets resting on a pillow, on one end of which is carved an animal resembling an elephant. The extreme length of the figure is 6 feet 4 inches. The figure of the lady to the left, 5 feet 6 inches in length, is clad in a loose robe with puckered sleeves, tied with a cord round her waist, her hands folded on her breast. The features of

both effigies are almost entirely obliterated, and appear to have been of rude workmanship. They are of different quality of stone from the slab on which they rest."

Inventory, No. 148.

The head of the man rests on a tilting helmet; the hands are ungauntleted. At his right side is a dagger $20\frac{3}{4}$ inches in length, the blade measuring $14\frac{1}{2}$ inches; it is attached to a belt which

is buckled in front. The feet are spurred. The animal on the end of the pillow on which the feet rest may to some be more like a horse than an elephant; it appears to be mounted.

The face of the lady has suffered less damage than the other; it has been rudely carved. The head rests on a rectangular cushion with tassels at the corners. The details of the dressing of the hair, which appears to have been confined in a fret, and the puckering and embroidery of the sleeves, are well preserved. The feet rest on the figure of a dog.



FIG. 2.—EFFIGIES IN EDMOND CHURCH.

The weathered condition of both effigies suggests that they have not always enjoyed the protection of a roof. The inscription on the chamfered edge of the sarcophagus is difficult to decipher in parts. As it has been incorrectly copied elsewhere, it is here reproduced (fig. 3). It runs along the head and right side of the stone and reads as follows :

"Heir Iyis Ane nob[le] Squyar Patrik Howme of ye | Brwm Howe
and his Spous dem Elener Uyrdrop of yaistir Heuttwn 1553."

The letters are in relief, but the date is incised. The latter has probably been added at a different time, the form of the figures suggesting a period later than the sixteenth century.

On the south side of the sarcophagus are two panels. On one of these are two shields bearing, *dexter*, quarterly, 1st a lion rampant, 2nd and 3rd, three papingoes, 4th, a cross engrailed; *sinister*, an orle with three martlets in chief (for Rutherford). The other panel bears in raised letters "P.H. 1668," the initials are those of Patrick III of Broomhouse, great-grandson of Patrick whose effigy lies above.

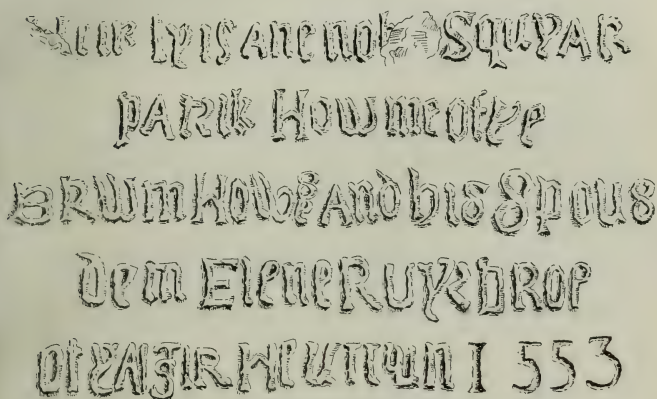


FIG. 3.

A drawing of this monument has been reproduced in *Through the Borders to the Heart of Scotland*, by Gordon Home (1924), p. 51.

Living in a stirring period of Scottish history Patrick Home had an eventful career. He was one of the "Seven Spears of Wedderburn" who fought at Flodden, and four years later took part in the historic slaughter of the Seigneur de la Bastie, which took place less than half a mile from his tower of Broomhouse. In 1520 he was present at the "Clear the Causeway" skirmish in Edinburgh. He later played an important part in Border warfare, his tower being burnt by the English in 1544, when his wife Helen Rutherford and her children perished in the flames. This incident was much resented by the Scots, and suggested the war-cry, "Remember Broomhouse," at the

battle of Ancrum four months later, when a complete revenge was taken.*

Elener Wardrop of Easter Hutton seems to have been his third wife.

Parish of Longformacus.

The site of a former burying-ground lies on the right bank of the Watch Water about a hundred yards above its confluence with the Corse Burn. A chapel is traditionally located here, and it is not improbable that the name of the burn is derived from a cross on the site.

Mr John Ferguson states that "a grave slab, having carved upon it the figure of a knight in armour, with a dog at his feet and a sword by his side, was removed from this burying-ground about the beginning of the century, and taken to Lylestone, near Lauder, where it was converted into a hearth-stone for the farm house."†

No trace of this stone can now be found at Lylestone. It was probably taken there by a tenant of Rawburn called Peter Purves, who removed to Lylestone before the year 1805.‡

Parish of Swinton.

"Placed within a semicircular niche or recess at the side of the pulpit, near the middle of the south wall of the church, is a rudely executed full-length effigy. The work is extremely crude, and the figure holds between the hands resting on the breast what is clearly a book bound in boards. There is a slab at the back of the recess bearing a curious representation of the Swinton arms and the legend, HIC IACET ALANUS SVINTONVS MILES DE EODEM. This is believed to be the tomb of Sir Alan Swinton of that ilk, who died about the year 1200. The reference may be to Sir Alan Swinton, but "Swintonus" is a false form, and certainly not contemporary with any Alan on record.

* See "Historical Notes on Broomhouse and the Home Family," by Major Logan-Home, *Hist. Ber. Nat. Club*, vol. xxv, p. 381 (1925).

† *Hist. Ber. Nat. Club*, "The Pre-Reformation Churches of Berwickshire," vol. xiii, p. 119.

‡ *Ibid.*, vol. xxiv, p. 433.





EFFIGIES OF PATRICK HOME AND HIS WIFE, EDROM.



THE SWINTON EFFIGY.

The lettering also is late. Similarly, the effigy has no real connection with the person named in the inscription. The arms display the crest of the chained boar, but the crest is not known in Scotland before late in the last quarter of the fourteenth century, while the boar and the boars' heads are all *contourné*, that is, heraldically turned in the wrong direction. All the details suggest that this work as it stands is to be attributed to the same period as the other heraldic panels about the church—the end of the sixteenth or the first part of the seventeenth century.”

Inventory, No. 279.

Mr Brydall in his paper on “The Monumental Effigies of Scotland,”* where this effigy is figured, is of the opinion that it “may very probably belong to the period to which it is assigned,”—the beginning of the thirteenth century.

The treatment, however, both of the effigy and of the panel above is more suggestive of seventeenth-century work. The good state of preservation of the effigy also suggests a late date; the feet have been broken, but there is no sign of weathering. The figure has the appearance of being nude; the only indications of armour are faint lines above and below the knees which may or may not represent knee-pieces. The effigy has been painted (Plate IX, and fig. 4)

It is not impossible that it may have been made to take the place of an original effigy of Sir Alan.

The omission of arms and armour and their substitution by a book held between the hands might suggest that the work was done by order of John Swinton of Swinton, who in 1657 came under the influence of George Fox. If so, the work must have been carried out before 1660, as political troubles after the Restoration separated the family from their estate for many years.

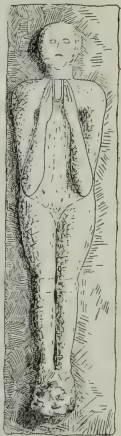


FIG. 4.—
EFFIGY IN SWINTON
CHURCH.

* *Proc. Soc. Ant. Scot.*, vol. xxix, p. 342 (1894–1895). The effigy has also been figured in *The Swintons of that Ilk and their Cadets* (1883), p. 5.

THE MOSSES AND HEPATICS OF BERWICK-SHIRE AND NORTH NORTHUMBERLAND.

By J. B. DUNCAN. .

DURING the year 1926 some further additions have been made to the bryophytic flora of these two vice-counties ; a list of these is now given.

For Berwickshire there have now been recorded :

Mosses—species and subspecies 265, varieties 46.

Hepatics—species 74, varieties 11.

and for North Northumberland :

Mosses—species and subspecies 308, varieties 55.

Hepatics—species 89, varieties 13.

The area of North Northumberland exceeds that of Berwickshire, but the disparity in the numbers of their bryophytes is due mainly to Northumberland possessing the higher mass of Cheviot and to its coast-line being much more varied in character.

Such an area as Holy Island with Ross Links, providing a habitat for many rare plants, is not to be found in Berwickshire.

Another factor is the large tract of moorland between Kyle and Alnwick, where outcrops of the Whin Sill and the Coal-measure sandstone rocks produce some plants not likely to be found in Berwickshire.

For the future, it will be more and more difficult to make additions, but the more remote and outlying parts of our areas—the Lammermuirs and parts of the Cheviot mass—are still to some extent unexplored and may be expected to yield something.

Among the more notable plants now recorded are the mosses—*Dicranum strictum* and *Funaria Templetoni* from Rothbury ; *Grimmia Hartmani* by the Whitadder at Elba ; and *Tortula princeps* on rocks at Hume Castle.

MOSSES.

68=Northumberland (North). 81=Berwickshire.

Andreaea petrophila var. *acuminata* B. & S.—81, rocks by the Whitadder at Elba; Black Hill, Earlstoun.

A. Rothii Web. & Mohr.—68, sandstone rocks, Craggside, Rothbury.

Pleuridium axillare Lindb.—68, fields near Ross; by the Till at Weetwoodhall.

Dicranella heteromalla var. *interrupta* B. & S.—81, Hume Craigs.

D. crispa Schp.—68, Ross Links; seabanks at Marshall Meadows.

D. rufescens Schp.—81, by the Blackadder near Allanton; field near Press Castle.

D. Schreberi var. *clata* Schp.—68, wet ground near Cartington, Rothbury.

Campylopus brevipilus B. & S.—81, Coldingham Moor.

Dicranum Bonjeani var. *rugifolium* Bosw.—81, Bunkle Wood.

D. strictum Schleich.—68, sandstone rocks, Craggside, Rothbury.

Fissidens exilis Hedw.—81, Green Wood, near Grantshouse, also in a plantation near Greenfield, Mordington.

F. decipiens De Not.—68, dean at Warenford; Easington Craigs.—81, North Wood, Ale Water; Whitadder at Elba.

Grimmia Stirtoni Schp.—68, Kyloe Craigs and Kyloe Hills, near old quarry.

G. Hartmani Schp.—81, rocks by the Whitadder at Elba.

Tortula princeps De Not.—81, rocks at Hume Castle.

Orthotrichum affine var. *rivale* Wils.—68, trees by the Coquet, Rothbury.

O. Sprucei Mont.—68, trees by the Till at Weetwoodhall.

O. tenellum Bruch.—81, on an old Elder tree near Witches Knowe.

Physcomitrella patens B. & S.—68, Edlingham Castle.

Funaria Templetoni Sm.—68, stream at Craggside, Rothbury.

Philonotis caespitosa Wils.—68, damp rocks, Henhole, Cheviot.

Webera nutans var. *longiseta* B. & S.—68, Shepherdskirk Hill, Kyloe; moors near Edlingham.

W. prolifera Bryhn.—81, rock crevices, railway cutting near Grants-house.

Bryum capillare var. *macrocarpum* Huebn.—68, damp rocks on hillside near Kyloe.

B. capillare var. *flaccidum* B. & S.—81, by a stream at Press Castle.

B. erythrocarpum Schwaeg.—68, wooded banks of the Till near Tiptoe.

Heterocladium heteropterum B. & S.—81, Brockholes Wood.

Eurhynchium crassinervium var. *turgescens* Mol.—68, rocks in the Coquet, Thrum Mill, Rothbury.

E. praelongum var. *Stokesii* Brid.—81, Blackadder near Allanton.

E. rusciforme var. *atlanticum* Brid.—81, small stream falling over cliffs near Coldingham Loch.

Plagiothecium latebricola B. & S.—81, on decayed stump, Brockholes Wood.

Hardy records having picked some fragments of this moss amongst tufts

of *Bryum pallens* gathered near Buskin Burn on Coldingham Moor. The association suggests an error and his plant proves to be *P. pulchellum*. *P. latebricola* was, however, gathered by Anderson in Brockholes Wood, where I also succeeded in finding it this year.

Amblystegium filicinum var. *Whiteheadii* Wheldon—68, Ross Links.

Hypnum riparium L.—81, by a pool near Ayton.

H. exannulatum Güm.b.—68, moors near Edlingham.

H. giganteum Schp.—68, bog near stream, Lucker Moor.

HEPATICS.

Metzgeria furcata var. *fruticulosa* (Dicks.) Lindb.—81, trees Greenfield, Mordington; Blackadder, near Allanton; Cowdenknowes, Earliston.

Fossombronina Wondraczeki (Corda) Dum.—81, on stiff soil, North Wood, Ale Water; field near Press Castle.

Haplozia crenulata var. *gracillima* (Sm.) Heeg—68, Kylloe Plantation.

H. sphaerocarpa (Hook.) Dum.—68, wet rocks by the Warenford Burn.

Lophozia bicrenata (Schmid.) Dum.—68, Crag-side, Rothbury.

L. excisa (Dicks.) Dum.—68, Craster; seabanks at Marshall Meadows.

L. Hatcheri (Evans) Steph.—68, Kylloe Crag-s.

Leptoscyphus anomalus (Hook.) Mitt.—68, wet moors at Edlingham and Detchant.

Chiloscyphus polyanthus var. *fragilis* (Roth.) K. Müll.—68, Bizzle Burn, Cheviot.

Cephalozia serriflora Lindb.—68, peat moor at Edlingham.

Odontoschisma Sphagni (Dicks.) Dum.—68, wet moors at Detchant and Kylloe.

O. denudatum (Nees) Dum.—68, Kylloe Hills.

Bazzania trilobata (L.) Gray—68, base of rocks among heather, Shepherdskirk Hill, Kylloe.

Lepidozia reptans var. *julacea* Nees—68, sandstone rocks Kylloe Hills and Dod Law.

Ptilidium pulcherrimum (Web.) Hampe—68, on birch trunks by stream near Warenford; rocks at Crag-side, Rothbury.—81, on birch at Green Wood, Grants-house, and on roots of beech tree near Greenfield, Mordington.

Scapania subalpina (Nees) Dum.—81, by the Whitadder at Elba.

S. intermedia (Husnot) Pears.—68, dean at Warenford.

S. umbrosa (Schräd.) Dum.—68, rocks by stream, Lucker Moor; Crag-side, Rothbury; Dod Law.

Frullania fragilifolia Tayl.—81, rocks by Whitadder at Elba.

Anthoceros punctatus L.—68, banks of the Till at Weetwoodhall.

IN MEMORIAM.

JOHN FERGUSON, F.S.A.Scot.

THE announcement last March of the death of John Ferguson must have aroused feelings of profound and widespread regret throughout the Borders, but surely nowhere is his loss more keenly felt or more deeply mourned than among his old friends of the Berwickshire Naturalists' Club. He was one of its oldest surviving members, having been elected so long ago as 1876. His loyalty to the Club, his interest in every phase of its activities, and the value of his contributions to the *Proceedings*, make it peculiarly fitting that we should dedicate these few pages to the memory of one so widely esteemed.

Since his retirement from public life, about five years ago, Mr Ferguson had been in indifferent health, suffering from an affection of the heart. In the autumn of 1925 his condition became worse. Towards Christmas a severe attack of bronchitis intervened. This greatly reduced his strength, and after a long and painful illness he passed away at Oakbank, Forgardenny, Perthshire, the home of his younger son, on the 7th of March 1926. Four days later he was laid to rest in the Dean Cemetery, Edinburgh, beside his wife who had predeceased him by two years.

John Ferguson, the only child of William Lee Ferguson and Elizabeth Spence his wife, was born at Allanton in the Merse on the 22nd of January 1851. On his father's side he was of Highland origin, his great-grandfather Daniel Ferguson having migrated to Berwickshire from Kilmadock, near Doune, Perthshire, shortly after the suppression of the Jacobite rising of 1745.

His mother was a cousin of the Rev. Adam Spence, minister of the Free Church at Houndwood. Both parents were God-fearing and devout, and their influence in the building-up and development of his character was deep and lasting. He received

his education at the Boys' School at Allanton under Mr Andrew Kelly, who fostered in him a taste for botany and natural history, a taste which he never lost. The banks of the Whitadder with their varied bird and plant life were to him a source of endless enjoyment and instruction. It was amid such surroundings that he first opened his eyes to the ever-changing pageant of the seasons, and here he learned his first lessons from the Great Book of Nature. Early in life, and in a very real sense, he made the poet's prayer his own—

“Father of light and life, Thou good supreme,
O teach me what is good, teach me Thyself.”

With his awakening interest in natural science came that love of books which was so characteristic of him all through life.

At the age of fifteen he was indentured as an apprentice to Mr James Curle Robson, solicitor and bank agent in Duns, who also held various public appointments, including that of Procurator-Fiscal of the county. Mr Ferguson having completed his apprenticeship became Mr Robson's principal assistant, and, on the latter's death in 1878, succeeded to the business in conjunction with Mr Charles Robson of Kelso. A few months later he was appointed factor on the estate of Duns Castle, a position which he held under four successive proprietors until his retirement from business in November 1922. A few years previously he had assumed as a partner Mr C. Strachan Petrie, solicitor, Edinburgh.

He married in 1879 Catherine, daughter of Alexander Brown, The Hermitage, Duns, by whom he had a daughter and two sons. For forty-five years she was his loving helpmate and constant companion, sharing largely his tastes and interests. Her death, in Edinburgh on the last day of February 1924, was a blow from which he never recovered.

A few details regarding Mr Ferguson's public life, and his work for Duns and the county in general, may not be inappropriate at this point. In addition to practising as a solicitor and estate agent, he was for many years Deputy Procurator-Fiscal of Berwickshire, and latterly an Honorary Sheriff-Substitute for the county. He was for twelve years a member of Duns School Board, acting as chairman during half that period. A member of the old Parochial Board, he also served

on the Parish Council from the date of that body's inception. During the War he worked strenuously as Honorary Secretary to the county branch of the Red Cross, and also acted on the Berwickshire Military Tribunal.

In business, as in all other relationships of life, his rectitude and high sense of duty earned for him the confidence and esteem of those with whom he came in contact.

Mr Ferguson was for many years an elder and Session-Clerk of the South United Free Church, Duns.

It is impossible within the limits of this short notice to do more than briefly indicate a few of the many branches of learning to which Mr Ferguson specially devoted his attention.

As we have already said, his taste for botany and natural history dated from his boyhood, and was carefully and systematically cultivated as the years advanced. To this must be added his fondness for archæology and architecture. For years he had been in the habit of spending his annual holiday among sites and buildings of historic interest. In this way he gradually acquired a very complete knowledge of the various styles of architecture which prevailed during the Middle Ages in our own and other countries, a knowledge which was to prove of supreme value to him when he commenced his survey of the ecclesiological remains of Berwickshire. Nor were these the only occupations of his leisure. His thirst for information and his naturally artistic and poetic temperament led him to read widely and deeply. He became an enthusiastic student of art and letters, making himself familiar with the classics of our own and other literatures, and his remarkable memory enabled him to quote with great readiness long passages from his favourite authors. In reading aloud he had a very special gift. An accomplished bibliographer, he specialised in that branch of the science relating to illuminated manuscripts and early printed books, of which he possessed a fine collection. A man of admirable taste in matters æsthetic, he had little patience with the extravagances of certain schools of latter-day art. "It seems to me," he would say with a touch of his quiet humour, "that is how *not* to do things." The devotional feeling and fine colour of the early Italians, and the masterpieces of French mediæval sculpture and stained glass, had for him a strong fascination. He loved the imaginative work of

such artists as William Blake, whom, it is interesting to note in passing, he discovered for himself at a time when the poet-painter was but little known.

In the Berwickshire Naturalists' Club Mr Ferguson found congenial fellowship, and was one of that enthusiastic group of botanists which included the late Dr Stuart of Chirnside, and Mr Boyd of Faldonside. In his garden at The Hermitage, Duns, his love of flowers found full scope, and he gathered together a large and choice collection of Alpine and other plants. A beautiful saxifrage of his own rearing bears his name (*Saxifraga Fergusoni*). His rockeries at The Hermitage afforded him endless pleasure, and this he was very ready to share with any visitor who took an interest in Alpines.

But it is unquestionably by his contributions to the ecclesiology of the Scottish Border that he will be best remembered. He made this field of local research peculiarly his own, and so far at least as his native county is concerned, he must be regarded as a pioneer. It is not too much to say that his "Notices of Remains of Pre-Reformation Churches, etc., in Berwickshire," contributed to the Club's *Proceedings* in 1890, was not only the first work of its kind to be undertaken for the county, but is still regarded as the authoritative work on that subject. Within its pages he has reverently gathered up the mutilated but still beautiful and precious fragments of our ancient ecclesiastical art, and has classified and described them with much care and accuracy. Called to the Presidential Chair of the Club in 1896, his address at Berwick on the ecclesiastical arrangements prevailing in Berwickshire from the twelfth century to the Reformation supplemented his "Pre-Reformation Churches." About this time Mr Ferguson discovered the two missing orders of the cloister doorway at Dryburgh, and through his instrumentality these were restored to the Abbey, where they now complete that fine doorway. In addition to the work just referred to, he published in our *Proceedings* valuable papers on the four great Border Abbeys, which if taken together form an admirable guide to these historic structures. In this connection we may mention that when the British Association visited Melrose Abbey, Mr Ferguson acted as guide.

By his researches among Papal documents, he was enabled to solve the long-vexed problem as to the original plan of Kelso

Abbey. This important discovery he embodied in his paper delivered to the Club at Kelso in 1921. He also edited for the Club the *Historical and Descriptive Account of Bunkle and Preston*, by Dr Hardy and Dr Henderson. But apart altogether from the scientific value of his contributions to Border archæology, his writings have another merit, one by no means frequently met with in work of this class—we refer to the beauty of their literary form. The reader has only to turn for example to his papers on the Border Abbeys to be fully convinced of this. His “In Memoriam” notice of the late Dr Hardy, besides containing much interesting biographical matter, is in itself a worthy tribute to the memory of that eminent scientist from one who was his intimate and life-long friend. A Fellow of the Society of Antiquaries of Scotland, Mr Ferguson was also a member of the Scottish History and Scottish Text Societies.

It was in September 1922, amid the hallowed ruins of Dryburgh—a spot very dear to his heart—that he addressed the Club for the last time. On that occasion he spoke of some of the literary and historical associations of the place. To-day, though he has passed from our fellowship and beyond the sphere of our activities, the worth of his example remains to quicken and encourage, and his call to earnest and concerted effort is as clamant now as when it was first uttered. “We have,” he wrote in 1896, “our work laid to our hand and our duty is plain. . . . Without such humble labours as ours, neither history nor any philosophy of history could possibly be constructed. We cannot scan too carefully or minutely for ourselves the wonderful web of human experience, or strive too earnestly to read the design, at once the prophecy and unfolding of human destiny which is woven therein; and each of us may do his part by catching up threads here and there as he may, and by seizing such stray hints and glimpses of the Divine Plan as are ever and anon revealing themselves, to anticipate and hasten on the day of complete and final and glorious disclosure.”

Brief and incomplete as this notice must necessarily be, it is impossible to close without emphasising the spiritual side of a personality so singularly attractive and many-sided.

Mr Ferguson endeared himself to all who knew him, not merely by the quiet charm of his manner and the richness and variety of his intellectual gifts, but most of all by the strength

and beauty of his Christian character. As a man he was deeply religious, and in seeking to serve his Divine Master, he served his fellowmen with unwearying constancy and devotion. With all his scholarship and his remarkable fund of information—a fund always at the disposal of the earnest inquirer—he was ever the humblest, the kindest, the most unselfish of men. If he loved the beautiful in nature and in human achievement, it was because he saw there a reflex of the Divine. Thus to him the noble architecture of our ancient churches was but the outward expression of that higher and spiritual Beauty towards which he himself was ever striving. With his passing he has left in the hearts of his many friends a fragrant and abiding memory, the memory of one with whom it had been good to sojourn.

LIST OF MR FERGUSON'S CONTRIBUTIONS TO THE *Proceedings* OF THE
BERWICKSHIRE NATURALISTS' CLUB.

- Vol. vii, p. 120, On the Kingfisher and other Birds. (1873.)
 „ „ p. 284, Zoological Notes. (1874.)
 „ ix, p. 136, On Winter, 1878/9. (1879.)
 „ x, p. 359, Effects of Gales of October 1881 and February 1882, on Plantations on Duns Castle Estate, the Property of William James Hay, Esq. (1883.)
 „ xiii, p. 86, Notices of Remains of Pre-Reformation Churches, etc., in Berwickshire. (1890.)
 „ xiv, p. 50, Report of Meeting at Duns, Nisbet, and Fogo. (1892.)
 „ „ p. 156, Notes on the Injury done by Field Voles to Young Plantations on Duns Castle Estate. (1892.)
 „ „ p. 219, Report of Duns and Langton Meeting. (1893.)
 „ xvi, p. 1, Address to Berwickshire Naturalists' Club at Berwick, 14th October 1896.
 „ „ p. 17, Additional Notices of Remains of Early Religious Architecture in Berwickshire. (1896.)
 „ „ p. 107, On a Seal of Coldingham Priory belonging to Mr H. H. Craw, West Foulden. (1896.)
 „ „ p. 108, Addendum. (1896.)
 „ „ p. 167, Report of Meeting at Johnscleugh and the Source of the Whitadder. (1897.)
 „ „ p. 337, Note on Plate of Duns Castle. (1898.)
 „ „ p. 341, In Memoriam, James Hardy, LL.D. (1898.)
 „ „ p. 381, The late Mr James Wood, Galashiels. (1898.)
 „ „ p. 383, The late Rev. George Wilson, Glenluce. (1898.)
 „ xvii, p. 51, Report of the Meetings, Newtown St Boswells, Ringley Hall, The Law, Makerstoun, Littledean Tower, and Maxton. (1899.)

- Vol. xx, p. 162, Notes on Melrose Abbey. (1907.)
 „ xxiii, p. 50, Old Rites, Ceremonies, and Customs of the Inhabitants of the Southern Counties of Scotland. By T. Wilkie (edited by the late Dr Hardy. Foreword by J. Ferguson). (1916.)
 „ xxiv, p. 217, Notes on Jedburgh Abbey. (1920.)
 „ „ p. 292, Notes on the Priory of Abbey St Bathans. (1921.)
 „ „ p. 296, Notes on Kelso Abbey. (1921.)
 „ „ p. 413, Notes on Dryburgh Abbey, and some of its Associations. (1922.)
 „ xxv, p. 155, Additional Notes on Kelso Abbey. (1923.)

Edited for the Club, *Historical and Descriptive Account of Bunkle and Preston*. (1900.)

NOTE OF MEMBERS.

On Roll at 6th October 1925	.	.	392
Add New Members 1926	.	.	31
„ 1 Member re-elected	.	.	1
			<hr/> 424
Less—By death	.	.	5
„ resignation	.	.	12
			<hr/> 17
Total on Roll	.	.	<hr/> 407
Associate Members	.	.	2
Honorary „	.	.	9
Corresponding „	.	.	1
			<hr/> 12
Members at 30th September 1926	.	.	<hr/> 419

ACCOUNT OF RAINFALL IN BERWICKSHIRE DURING 1926.

By JAMES HEWAT CRAW, F.S.A.Scot.

[illegible]

TREASURER'S FINANCIAL STATEMENT FOR YEAR ENDING 30th SEPTEMBER 1926.

RECEIPTS.

<i>Subscriptions—</i>	
403 Members at 10s. . .	£201 10 0
1 Arrear . . .	0 10 0
31 Entrance Fees at 10s. . .	15 10 0
Donations . . .	0 18 0
<i>Sale of Club Badges, 199 at 2s. each</i>	£218 8 0
<i>Extra received from Members to cover Bank Charges</i>	19 18 0
<i>Transactions sold by Librarian . . .</i>	0 3 5
<i>Interest on Bank Deposit . . .</i>	11 9 10
	£0 6 1
	8 7 2
	8 13 3

<i>Total Income for Year</i>	£258 12 6
Balance at 6th October 1925:—	
Deposit Account { £239 7 10	
5 16 6	
£245 4 4	
Current Account . . .	64 14 8
	309 19 0

Amount overdrawn at Bank (Current Account)

£568 11 6
84 15 1
£653 6 7

Note I.—

Income for year . . .	£258 12 6
Expenditure for year . . .	343 7 7
Loss on year's working . . .	£84 15 1

PAYMENTS.

<i>Printing and advertising—</i>	
Neill & Co., Edinburgh—	
Proceedings . . .	£263 15 6
Field Notices . . .	22 2 6
	£285 18 0
G. C. Grieve . . .	{ £2 11 0
	3 19 0
	6 10 0
<i>Club Badges—</i>	
Reid & Sons . . .	{ £9 1 3
	19 5 0
	28 6 3
<i>Rent—</i>	
Museum, Berwick . . .	3 10 0
<i>Postages and Officials' Expenses—</i>	
Secretary . . .	£3 0 0
Editing Secretary . . .	2 0 0
Treasurer . . .	3 14 8
Librarian . . .	0 8 1
	9 2 9

<i>Clerical assistance . . .</i>	£7 0 0
<i>Cleaning Room at Museum . . .</i>	0 7 6
<i>Commission on Cheques . . .</i>	0 9 1
<i>Office Equipment . . .</i>	2 2 0
<i>Cheque-Book . . .</i>	0 2 0
	10 0 7

Total Expenditure for Year

Balance on Deposit . . .	£343 7 7
	309 19 0
	£653 6 7

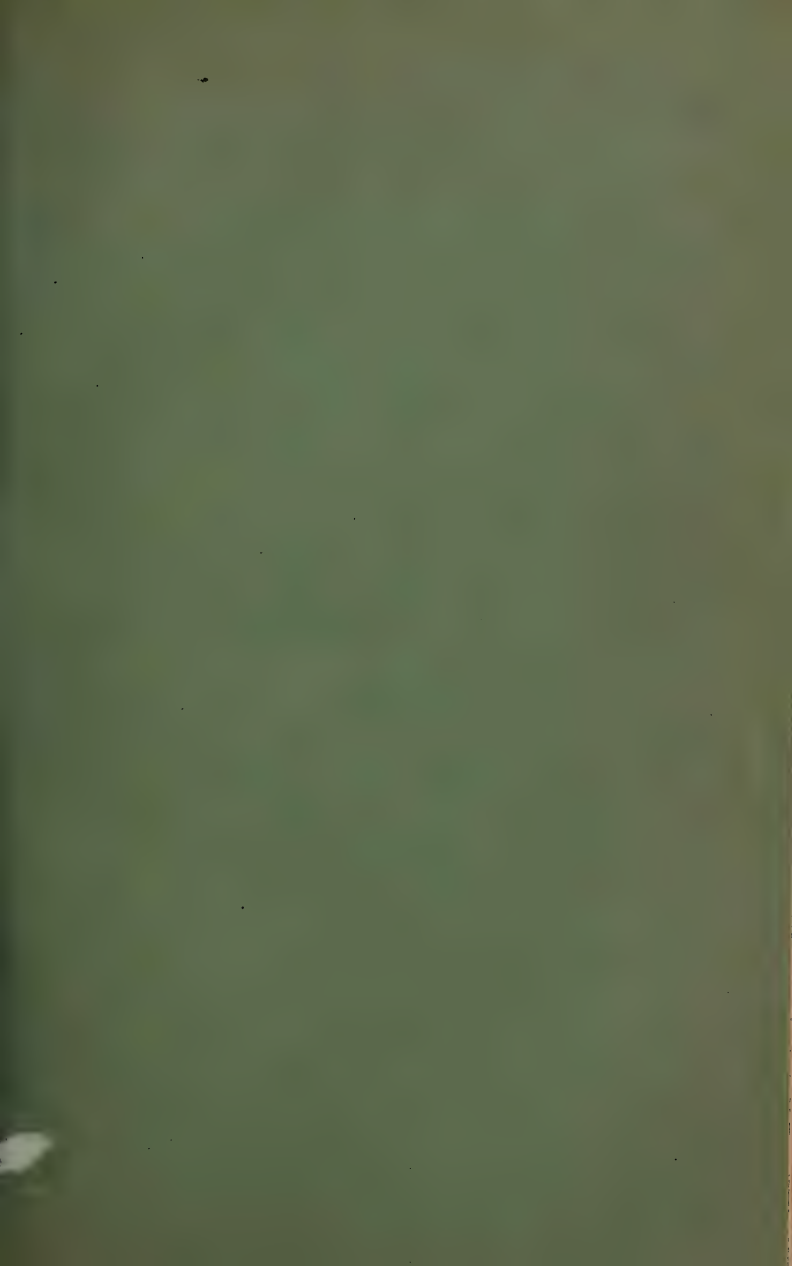
Note II.—

Balance at Credit at date . . .	£225 3 11
Neill's estimated 1926 account	135 0 0
Nett estimated balance in Club's favour at date . . .	£90 3 11

12th October 1926.—I have examined the above Financial Statement with the books and receipted accounts, and find it correct. The Bank Pass-Book and Deposit Receipt have been exhibited to me.

(Signed) C. A. ROBSON, Auditor.







HISTORY
OF THE
BERWICKSHIRE
NATURALISTS' CLUB

INSTITUTED SEPTEMBER 22, 1831

"MARE ET TELLUS, ET, QUOD TEGIT OMNIA, CÆLUM"

VOL. XXVI. PART II.

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1928



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HISTORY OF THE BERWICKSHIRE NATURALISTS' CLUB.

CONTENTS OF VOL. XXVI.—PART II.

1927.

	PAGE
1. Annual Address by Captain FULLARTON JAMES, delivered 12th October 1927	97
2. Reports of Meetings for 1927. By J. H. CRAW, F.S.A. SCOT. :—	
(1) ILBERTON AND THREESTONEBURN : 26th May	111
(2) THE UPPER WHITADDER : 23rd June	114
(3) BOTHAL, NEWMINSTER, AND MITFORD : 21st July	118
(4) WARKWORTH : 17th August	121
(5) HUME AND SMILHOLM : 15th September	124
(6) BERWICK : 12th October (Plate X)	128
3. The Lepidoptera of Northumberland and the Eastern Borders. By GEORGE BOLAM	135
4. Notes on the Insects of Berwickshire. II. Sawflies. By JAMES CLARK, M.A., D.SC., A.R.C.S.	228
5. On an Heraldic Panel at Roseden. By JAMES HEWAT CRAW, F.S.A. SCOT.	244
6. The Mosses and Hepatics of Berwickshire and North Northumber- land. By J. B. DUNCAN	246
7. The Meeting of the British Association for the Advancement of Science at Oxford, in 1926. By GEORGE GREY BUTLER, M.A.	248
8. Report of Meeting of the British Association for the Advancement of Science. Leeds 1927. By JOHN BISHOP	256

CONTENTS.

	PAGE
9. Appointment of Secretary	265
10. Berwickshire Naturalists' Club Library	265
11. A Phase of Border History. By J. LINDSAY HILSON	266
12. John Crawford Hodgson, M.A. By EDWARD THEW	271
13. Meteorological Observations in Berwickshire during 1927. By Rev. A. E. SWINTON, M.A., F.R.MET.SCOT.	282
14. Account of Rainfall in Berwickshire during 1927. By JAMES HEWAT CRAW, F.S.A.SCOT.	283
15. Treasurer's Financial Statement for Year ending 30th September 1927	284



PROCEEDINGS
OF THE
BERWICKSHIRE NATURALISTS' CLUB

Address delivered to the Berwickshire Naturalists' Club at Berwick, 12th October 1927. By Captain FULLARTON JAMES.

LAST October you were kind enough to approve of my nomination to be your President, and I thank you sincerely for the honour. I hope you have enjoyed the experience as much as I have.

I must add my very grateful thanks to those of preceding Presidents, to our Secretary, Mr Craw, for all the help and advice he has given, and for making my duties so light. I think we are unusually fortunate in our office-bearers.

Other Presidents have very fully explained how wide is the scope of the Club's activities and interests, and I therefore make no apology for selecting as the subject of my address

SOME NOTES ON JUSTICE ON THE
BORDER,

WITH SOME REFERENCE TO ITS EXEMPLIFICATION
IN THE TWENTIETH CENTURY.

Unfortunately, it is a large subject, and I can therefore only touch upon its fringe.

Justice is defined by Webster as "the maintenance or administration of that which is just; the rendering to every one his due or right; just treatment; requital of desert; also merited reward or punishment; that which is due to one's conduct or motives. Justice when personified is usually represented as a goddess (the Roman Justitia) holding a sword or scales, often both. Her eyes are sometimes blindfolded or closed in token of impartiality. 'This even-handed Justice,' as Shakespeare said. Administration of law; the establishment or determination of rights according to the rules of law or equity."

The late Mr Godley, in his *Reliquiæ*, published this year, says, however: "The unsuccessful litigant at *Irish Petty Sessions* was heard to complain that he had had enough of law yesterday, but he wants justice to-day." Again—"Justice in *Ireland*, quite frankly, is *getting what you want*."

We shall see if this is a fair description of justice on the Borders. And here may I explain that, though my illustrations are necessarily mostly taken from the English side of the Border, we all know that it has a Scots side as well.

In illustration, may I mention the fate of Robert Loraine, to whose memory a stone was set up at Kirkharle in Northumberland in 1728 to record his murder in 1483, bearing the following inscription:

"In memory of Robert Loraine, ancestor of Sir William Loraine bart., who was barbarously murdered in this place by the Scots in 1483 for his good service to his country against their thefts and robbery, as he was returning home from the church alone where he had been at his private devotions."

"His body was cut into small pieces to fulfil their menace of cutting him into pieces small as flesh for the pot. He, together with Fenwick of Wallington, Swinburn of Capheaton, Middleton of Belsay, and Shaftoe of Bavington, and other landed proprietors, banded themselves together against the aggressive Scot. Loraine became so zealous and successful that in course of time he gained a reputation akin to that of Scott of Branxholme, who earned for himself the title of the 'Scourge of God.'"—(J. J. Vernon, Hawick Arch. Soc.)

Now, it is certain that Scots families can refer to the story of ancestors as "barbarously murdered" by the English for similar activities. Indeed the "Ettrick Shepherd" says so in his "Raid of the Kers":

"And never let's spare a Southron's life,
For the Kers with them are lawfu' game."

The Borders anciently were districts where hard knocks were to be got and given, and where the administration of law was a variable quantity, largely depending upon the "length of the Warden's foot." This applied as well to the Borders of Scotland and England and to those of Wales and England as to those of some county divisions. You will remember the story, in one of Crockett's novels, of the Black Douglas: "In the old days of the Black Douglas, when he had the power of life and death (and frequently exercised it), he had once an unfortunate before him who was charged with (1) being on the king's highway without due cause; (2) that he wandered in his discourse; (3) that he came from Carrick (in Ayrshire and next to Douglas's command). The third count being proved, he was hanged forthwith."

It is only possible, very rapidly and sketchily, to refer to the scheme for the administration of law on the Borders. This involved the appointment by the Kings of England and Scotland, from about the year 1300, of Wardens of the Three Marches (West, Middle, and East). Each Warden had his "deputy" and "keeper" or "captain" to help him, also various other officers, *e.g.* "land sergeants," "setters and searchers of the watches by the fords," and "constables" to carry out the details of what was, from about 1551, a very efficient administration. This is all set out in precise and very delightful fashion by our member Mr Howard Pease in his book, *The Lord Wardens of the Marches*. Here we can see maps giving the boundaries of the countries on both sides of the Border, and also of the "Debateable

Land" under this administration. I should like to express my obligation to Mr Pease for help from this source, and for his personal advice.

In Bishop Nicholson's *Leges Marchiarum* the arrangements for the watches are set out in great detail. In the Appendix are lists of those persons—inhabitants of each township—who constituted the "watch" of each post, in 1553, from the first night of October in each year till the sixteenth day of March following. It is interesting to know that a very similar plan is still pursued in Northumberland, and lists printed of the guard, but the posts chosen are now generally on the bridge over the river and not at the fords. There was also a plan to dam and stop the fords, where for certain reasons the inhabitants could not hold them.

In those days there were few, if any, roads, and the "passeges" across the Border were very numerous. In the *Calendar of the Border Papers*, 1597, are set out the "passeges and byeways for the theefe," for the Middle Marche alone, all along the Border of Scotland, numbering forty-four. The watchers must have had a busy time.*

We will now look at some of the many contemporary illustrations of our subject; these are largely taken from reports on various charter chests, etc., and are contained in the volumes of the Historical MSS. Commission.†

Thus we read that "Henry Earl of Northumberland—then Lord Warden General—granted an annuity of 5 marks during life to Edward Charlton, in consideration of his capturing Archibald Dod, late of Tindale, an outlaw and a rebel against the King; and for that he shall so continue his diligence for taking of outlaws, rebels, thieves, and felons, and following of tracks of true men's cattle and goods which are stolen from time to time by thieves" (1527).

* One well-known "passege" in Northumberland was called *Busy Gap*, near Sewingshiels, and the expression a "busy gap rogue" was a common term of opprobrium.

† The *Border Papers* are a mine of wealth on this subject, but I have purposely taken less well-known instances.

Then the 1540 Scots ordinance, which contains "regulations for the peace and good rule of the Borders," deals "only with offences committed in Scotland. There is at this stage no reference to any crimes committed by the Borderers on English ground. Strong measures as in the case of the Armstrongs and others were only taken when they made themselves too obnoxious to their own countrymen. As regards England, they were looked upon in the light of a troublesome but useful means of retaliation on that country, and their offences there condoned." *

Also after 1551 the Clan Johnstone bind themselves to act "as a local Police and to seize any offender, to deliver him to the Laird for punishment, and all to obey their Wardens."

Vol. IV., Reprints of Rare Tracts and Imprints of Antient Manuscripts. Printed by M. A. Richardson, 1849. Only 100 Copies printed. "The English Border in the Days of Henry the Eighth." Informations given by Sir Robert Bowes, Kt., unto Henry, Marquiss Dorset, K.G., Lord Warden General of all the three Marches of England for enempst Scotland, etc.

From a contemporaneous draught of the original in the manuscript library of Sir Cuthbert Sharp, collated with that in the British Museum.

"NORTHUMBERLAND.—The whole Countrie of Northumbland is muche geven to riottes, speciallic the yonge gentlemen or headesmen, and divers of them also to thefts and other greater offences, wch as they may be knowne would be iustlie corrected, for example of other, for the whole countrie is muche given to wildness, albeit the copleyners (complainers) for the most pte will alledge more in the complaint then truthe, and seake muche to have credence without hearing of the aunswere of thother pte, wch is verie daungerous in the administracon of Justice emonge them, for either pte doe muche covett to be hard alone, and when his adusarie is absent, will give many euill informacons of him, often tymes more then truthe, and be verie lothe to come face to face wth ther adversaries, And in absence of the pte adverse they will be full of euill reportes, wch they covett to round or speake vnder silence rather than openlie, But yt ys pillous (it is perilous) to give credence therevnto, vntill the other pte be hard, to aunswere for him selfe.

ADVERTISEMENT.

In the Tract entitled "The State of the Borders in the Days of Henry VIII" we had an exhibition of the laws and regulations adopted to curb and manage

* About this time (1540) "the Informations" given by Sir Rober Bowes, Knt. to the Lord Warden-General [Henry, Marquis Dorset, K.G.] o all the three marches of England, and headed "*The English Border in the Days of Henry the Eighth*," was written.

the turbulent spirits of the period, and perhaps were thereby enabled to form some idea of the great reason there existed for the making of such stringent rules.

For all this we may perhaps find a very good reason—the inhabitants of Northumberland then and now, exhibited and exhibit, the characteristics of their remote and peculiar descent—the antient Danes early colonized the county and their posterity to this day know and venerate their origin. We should be guilty of a great injustice, however, were we to confound these antient rievings and forrays with the idea of a common felony—they were undertaken by whole bodies of the inhabitants and were rather a series of retaliatory inroads originated by national animosities, fomented by personal loss, revenged with the utmost determination, and looked upon by both parties as a positive and public duty, rather than that they were incited by the mere desire of rapine and plunder. An inspection of the document we now print will shew that these inroads, or the most of them, whether undertaken by Scots or English, were in fact nothing more or less than miniature wars, or in other words, a perpetual running accompaniment (if we may be permitted on such a subject to use musical phrases) to the grand crashes every now and then perpetrated by armaments led by Kings, instead of clans led by chiefs—their object being the same—the resentment of injuries real or imaginary. We have, therefore, in our own mind, entirely relieved our ancestry from the imputation of a merely thievish disposition, and to rejoice that while an ever-to-be-blessed change has come over the manners of their descendants, it has not diminished one whit their wonted independence, openness of heart, high artistic and imaginative intellect, and unbounded hospitality.

A List of Border Raids in April to August 1587 (Hist. MSS. Comm. 1914, *Laing MSS.*):

“Incursions and day Forraies done within the Middle Marches since the laste of Aprill 1587 by the opposite realme, in hostiall and warlick maner and cheefly within the Cookdale and Ridsdale Warde, without either redresse or requitall, so that a great parte of the said frontiers at this instant are laid waste more then in the time of open warre to the great decay of service and dishonour to the realme.”

There follows thirty-seven notes fairly full of what the loss sustained by the Northumbrian was, and any, and what personal damage done.

For geographical and other reasons the centre of these “incursiounnis” was Whittingham, which is some ten miles west of Alnwick. But they extended as far south as within two miles of Morpeth, when the men of

West Tevedale took four horses "in the daie time" and "cutt of 2 fingers from one of the poore men in charge of them." Then Alnwick itself was visited, when "on 8 July 4 of East Tevedale took 4 horse from out of Alnwick park within half a mile of Sir John Fosters (the Warden of the Middle Marches) house."

One place, Wooperton, six miles south-east of Wooler, was unfortunate enough to be visited three times in five weeks by "East Tevedale, and horses, oxen, cows, sheep, were lifted and 6 men hurt in danger of his life in pursute of it."

Then, in 1595, we have the very interesting report by Lord Eure, at that time Lord Warden of the Middle Marches (Hist. MSS. Comm., *Third Report*):

"1595-6, Jan. 29. Hexham. Ralph Lord Eure (1595, Lord Warden of the Middle Marches, and successor to Sir John Forster in that office) to Henry Percy, Earl of Northumberland.—At my first entry on Tuesday before New Year's Day, the Burnes, Younges, and Mowes, with 27 mounted Scots, came to your town of Rugley near Alnwick (3 miles south-west of Alnwick Castle) and despoiled your tenants of 40 cattle and 4 horses. They continued in the town 2 hours, and although the 'fray came' to Alnwick town and the Comon bell was rung, yet none rose to the aid of the poor tenants, though 30 horses were that night in the stable of Sir John Forster, as Mr Fenwick, your Lordship's constable saith, besides 2 hands of foot from Berwick in the town.

"Another of your tenants was saved from death and spoil by the Burnes, whereupon the Younges quarrelled with the rest, yet in all that space no aid came.

"The Saturday after New Year's Day the Younges, not satisfied with their former feat, came again with 25 horse, and spoiled the whole town, save one Salkeld, a relative of Sir John Forster; but though the country rose, the track could not be found this time, and so the cattle went their way.

"I beseech you acquaint the Lords herewith, and let it not be kept from the Queen, for if your Lordship seek not according to Her Majesty's laws to get remedy, the country wil not rise, neither for your Lordship's tenants nor for the Queen's. Your Lordship may easily judge the cause of your tenants spoil, and I assure you Mr Fenwick tells me that among all your tenants he cannot show 12 able horses, so pitiful is their estate, and stand in need of your present help.

"Lamenting the general misery Northumberland is fallen into, and is like to continue without Her Majesty's aid and assistance."

This report, perhaps in more detail than any other,

gives the salient points of the administration of the prearranged plan of mutual defence.*

For some time after the Union matters did not show any great improvement, and so we find in 1605 a resolution of the Royal Commission for the settlement of the Borders, for the banishment—to serve in the garrisons of Flushing and Brill—of 150 of the Grahams from the “Debateable land.” This banishment was not very effective, as by November only fourteen of that clan remained in Flushing, the rest having returned home (Hist. MSS. Comm., *Lord Muncaster’s MSS. Report*):

“February 14, 1605. Whitehall. The Council to the Commissioners appointed for the government of the late borders. Instructions as to the execution of the commission.—Those malefactors of the surname of Graham who have been received to their submission are not to be meddled with for any offences committed before their submissions. Persons under bail to appear at the gaol delivery are to be left for trial there. All persons living within the bounds of the commission, or in certain other specified districts are to be forbidden the use of all manner of armour and weapons, and of horses ‘saving meane naggs for their tillage,’ excepting noble men and gentlemen and their household servants. The evidence of a Scotsman against an Englishman, and of an Englishman against a Scotsman is to be received.

“f. 3. N.D. The King to the Commissioners. Instructions as to the execution of the commission.—One of the English side is to be commander of the rest for the first three months, and then one of the Scottish side for three months, and so afterwards alternately. All deadly feuds are to be suppressed. Fugitives from one country to the other are to be delivered to the ordinary officer on demand. All idle vagabonds are to be expelled from the bounds of the commission. All in whom there can be expected no hope of amendment may be removed to some other place, ‘where the change of aire will make in them an exchange of their manners.’

“f. 13. April 7, 1605. Carlisle. Sir W. Lawson to Viscount Cranborne.—Having heard that the prisoners condemned when the Earl of Cumberland was his Majesty’s Lieutenant here had broken the prison on Wednesday last at night, I have repaired to Carlisle, where I find that twenty-nine out of thirty-three have escaped. Enclosed is a list of their names. Eight are Scots, who have gone to Scotland; the rest are Englishmen, of whom nine or ten should have been met yesterday between Penrith and Appleby, travelling southwards.

“June 2, 1605. Berwick.

* About this time (1603) we find the curious list of the “*names of those that standis in feade with otheris*” and is somewhat ominous for the peace of the country.—(MSS. of the Earl of Crawford and Balcarres at Duncht.)

"f. 15. Same day and place. The Commissioners to the Council.—We have taken order that Sir Henry Leigh and Sir William Cranston, with the horsemen in his Majesty's pay under their charge, shall go to the west parts to search for the condemned prisoners who have escaped from Carlisle, and, if they have taken the woods, to demolish their houses and expel their families, and to apprehend their 'aiders and comforters.' Forty horsemen have been enrolled for this service.

"June 27, 1605. Edinburgh. Sir William Cranston to the English Commissioners.—I have burned all the houses on the Scottish side, at Staykhue.

"April 21, 1605. Carlisle. Sir W. Lawson to the Earl of Northumberland.—On Monday last all the Commissioners, save Sir W. Selby and Sir Gideon Murray, rode from Carlisle to Dumfries, where upon the next day one Alexander Armstrong was tried and executed for the death of Sir John Carmichael, his Majesty's late Warden. I cannot but commend the Scottish Commissioners for their care for his Majesty's service. If a convenient number of men from both sides of the border, inured from their youth upwards to blood and theft, were picked out or otherwise sent away, the rest would be the sooner reclaimed.

"January 25, 1606. Newcastle. The English Commissioners to the Council.—Five persons were executed at Carlisle, of whom two were Scots, and seventeen at Newcastle, of whom four were Scots. Few of the Grahams who returned from Flushing and Brill have been apprehended. They expect a general pardon at the end of this Parliament, and in the meanwhile shift from place to place. If the Grahams were not, the country would soon be freed from theft. We desire that Sir W. Lawson may be allowed to stay with us.

"March 20, 1606. Hexham. The English Commissioners to the Earl of Salisbury.—Many of the Grahams returned from the cautionary towns, some fugitives of that name, and divers of those who broke out of Carlisle Castle, remained dispersed in Esk and in the adjoining countries of Scotland, with desire rather to hide themselves than to do much hurt. When Sir H. Leigh and Sir W. Cranston, with thirty soldiers, came to garrison in Esk, they withdrew themselves among the Carlises, the Johnstones, and other families related to them. After Sir W. Cranston's retirement to his own house, many of them returned. Some thirteen have been apprehended, and the rest have been forced to leave Esk. The people of Cumberland abhor and fear the name of Graham. We have required Sir W. Cranston to return to his place of garrison, and given the like order to Mr Leigh in the place of his father. The state of Cumberland and Northumberland has grown better since the issue of the Commission. There is no stealing save of trifles, and this is as rare as in other shires in England. We have advised the Earl of Cumberland that his grounds should not be farmed to the wives and friends of the Grahams. We have committed to Carlisle Castle divers of the Grahams who have neither been offenders of late years, nor returned from the cautionary town. Their restraint will not a little bridle their friends who are out. We desire that felonies committed in the middle shires should be exempted from pardon by a special proviso. We enclose several lists."

Before the death of James I. this continued lawlessness was taken in hand and the order had gone out for the demolition of the peel towers, and very many were razed to the ground. By 1636 a new spirit gradually emerged, and matters seem to have got into legal form, as "the Articles agreed upon by the Lordis Commisioneris of the Middle Shyreis of Greit Britane for the better pacificatione of the Borderis" show.

Some of the provisions are : "That no borderer under the degree of landit men shall go to Ireland without a licence.

"No alehouse keeper shall have any mutton, beef, or lamb in the house without the distinctive marks of the same being shown to two or more of their honest neighbours, who shall bear witness that the flesh is lawfully becomit.

"The wives or children of borderers executed for crime shall be removed from their dwellings by the landlords and not suffered to abide within the bounds of Commission; a list of persons outlawed is given. *Dumfries. 7 Oct. 1636.*"

A roll of the names of "sume Hielandmen quhaar notabill theiffis and limbaris." A long list is given containing many M'Gregors. The Highlander was evidently under a cloud at that time.

THE "ACQUITTANCE TO THE PARISH OF JEDBURGH."

"Acquittance to the Parish of Jedburgh of 300*l.* stolen by the Moss Troopers, dated 1 Feb. 1654-5, and signed Timo. Wilkes."

This document narrates that "on the 2nd of March last, about midnight, the sum of Three hundred pounds sterling of Cess was feloniously taken out of the custody of Mark Brown, sub-collector of the shire of Roxburgh, by a strong party of moss-troopers, armed with swords and pistols."

The parish of Jedburgh, represented by two Commissioners (John Rutherford of Edgerston, and Robert Rutherford, Town Clerk) at a court-martial held on the day above given, was acquitted of liability for the

loss on the plea that notice of the theft had been sent as early as possible to the nearest forces and the Sheriff Principal. This shows that even the rates were not secure against the thievish moss troopers, "*armed with swords and pistols.*"

As lawlessness on the Borders gradually decreased, the question of maintaining public order in times of excitement became more prominent. Thus, in 1685, on the impending death of Charles II., the "Lord Lieutenant is expected to take care, by giving all necessary orders to his Deputy Lieutenants and J.P.'s, to prevent all disorders that may happen upon any false reports of the death of the King." A century later, in 1792, the disturbances and riots in Berwickshire arising from the establishing of the toll gates took place, and the county was kept quiet by the military protection of three troops of Dragoons at Dunse. Then, in 1797, the much more serious riots over the enforcement of the Militia Act of that year took place in various parts of Scotland, the worst being that at Tranent in September, when nearly thirty were killed and wounded. Again, it was the deputy lieutenants, under the lord lieutenants of each county, whose duty it was to preserve order. This usually resulted in the military (Yeomanry) being called in, the special constables not being sufficient. The troops employed consisted of the Cinque Port Regiment and the Pembrokeshire Cavalry. This method of preserving order was very cumbersome, and resulted in far more damage being done and bad feelings engendered than need have been the case.

So about a hundred years ago the police force, very much as we know it now, was established by Sir Robert Peel, then at the Home Office. By employing an unarmed force, the co-operation of the community was gradually obtained; and what that means in efficiency is incalculable. Further, as the necessary numbers of police to keep down any apprehended disorder can be

set in motion by the initiative of one, or at most two, persons, time is not lost in that operation, as used to be the case when many authorities had to concur. Riots and other disorders of the sort are thus generally stopped before they have had time to become serious.

We must now consider, very briefly, some of the principles that govern the policing of a district, which depends largely on geographical considerations and the distribution of its population.

(1) Take the matter of geography. Before and after the commission of a crime roads are followed by the criminal; also, though less frequently, tracks and hill-paths. Then property is stolen with the intention of disposing of it; or a murder is committed and the criminal escapes to hide himself. What place so suitable in each case as one of the large towns in the vicinity? If you will look at the map of Northumberland with these points in view, you will see at once how comparatively easy it is, either to shut it up against attack, or to close it, and search within its boundaries for the criminal. Again, the entrances and exits are largely by bridges over the rivers Tweed and Tyne, and we are much helped by the mountainous and almost roadless parts on the west and north-west of the county.

The late Mr George, in his *Relations of Geography to History*, says: "The Cheviots form along the Border a barrier by no means impassable, but high and continuous enough practically to force communications, friendly or hostile, between England and Scotland, to pass through one or other of the gaps between the extremities of the Cheviots and the sea. Carlisle stands in the western gap, Berwick in the eastern and more important one. Hence the possession of Berwick was frequently and obstinately contested between the rival kingdoms."

A poem by "W. H. O.," in *Punch*, 3rd August 1927, sets this out as follows:

THE ROAD TO SCOTLAND.

The royal robes of purple cloak the shoulders of the Bens,
The silver-bosomed birches are a glory in the glens,
But before you win your welcome where the high tops wait
You must make your bow to Cheviot as guardian of the gate ;
For the Highlands may be calling, but it's Cheviot waves you through—
That old March Warder,
The Keeper of the Border,
Who gives you right of riding through the country of Buccleuch.

So you may choose the Gretna road and ghosts shall be your guides,
Of postboys spurred and booted and of little trembling brides ;
Or you may cross by Carter Bar and hear the raiding hoofs
Come trampling through the fords of Rede, and watch the burning roofs,
And see the smoke in Liddesdale, a cloud upon the blue,
Where the old March Warder
Is waiting on the Border
To give you right of riding through the country of Buccleuch.

As has already been said, in Bishop Nicholson's *Leges Marchiarum* we can read details of the very methodical manner in which, till the Union, the Borders were protected. The "watchers by the ford" by night and those on the hill-tops by day (in order to be in a position to see and guard or attack what passed on the tracks that were within their view or hearing) did all they could (and it was a great deal) with the appliances then to their hand. In the Ettrick Shepherd's "The Raid of the Kers," written in 1830, and describing a very daring sally of the Kers into a distant part of Northumberland on 29th September 1549, we have an excellent picture of how such attacks were made and repelled.

Now we have the well-made highway and bridge, the telephone and the motor car; though these aids are not confined to the modern "deputy wardens" and "watchers," but are often at the disposal of the criminal too.

(2) As to the distribution of the population. This has altered immensely since the development of mineral wealth. There has been a "great shifting of the balance of population" (George) from the hill region, the poorer,

scantier, and more backward portion, to that flatter and nearer the sea. In Northumberland this attraction of population has been from the north and west to south and south-east. In the four Petty Sessional Divisions where most of the coal mines, etc., are situated, there was in 1921 a population of 240,508. Forty years before, in those same divisions, then largely agricultural, there were only 130,085, showing an increase of some 85 per cent. The distribution of the population is important because it is correct generally to say that "*crime follows population*," because it follows personal property. This is so obvious that I need not enlarge upon it.

In the earlier days of which we have spoken, the greater amount of "*moveables*" were probably on the Scots side of the Border—the English side then being very poor in comparison.

There are many aspects of this subject that are of great interest, but time will not admit of any detailed reference. The ancient method for deciding the rights of a case, "*Trial by Combat*," is quite a large subject in itself and must be left for future treatment. Also the method that got the name of "*Jeddart Justice*." Again, there are stories, like that of Grizel Cochrane, that would well repay a close study.

Before sitting down I would like to refer to Mr G. M. Trevelyan's charming and all too short article on the "Middle Marches" in his *Recreations of an Historian*. It is a wonderful account of life on the Borders in olden times—a veritable gem in style and insight.

It only remains for me to nominate my successor, and I have great pleasure and every confidence in asking your approval to the election of Major Charles Scott-Plummer of Sunderland Hall, Selkirk. Major Scott-Plummer has been for many years a member of this Club, and his many other qualifications includes that of being a real Borderer.

Reports of Meetings, 1927.

1. ILBERTON AND THREESTONEBURN.

THE first meeting was held at Ilderton and Threestoneburn on Thursday, 26th May, when 75 members were present. These included Captain Fullarton James, President, and Mrs James; Mr G. G. Butler, M.A., Mr G. P. Hughes, and Col. G. F. T. Leather, ex-Presidents; Mr Craw, Secretary; Dr M'Whir, Editing Secretary; Mrs Aitchison, Lochton; Mrs Allhusen, Beadnell Tower; Mme Bertalot, Ayton; Lieut.-Col. C. F. Bishop, Kelso; Mrs Bishop; Mr John Bishop, Berwick; Mrs Bishop; Miss Brown, Longformacus; Mr J. Cairns, Alnwick; Miss Caverhill, Berwick; Mr W. D. Clark, West Ord; Miss Fenwicke Clennell, Barmoor House; Miss A. Fenwicke Clennell; Mrs Cresswell, Hauxley Hall; Mr W. S. Douglas, Mainhouse; Mr W. Douglas, Edinburgh; Mr W. R. Easton, Jedburgh; Mrs Biber-Erskine, New Mains, Dryburgh; Mr A. A. Falconer, Duns; Mr T. H. Gladstone, Berwick; Miss Greet, Norham; Miss Gray, Berwick; Mr T. Colledge Halliburton, Jedburgh; Mr H. B. Herbert, Fallodon; Miss Herbert; Miss Holmes, Berwick; Miss Milne Home, Paxton; Miss S. Milne Home; Mr J. Hood, Linhead; Miss Hood; Mr R. Kyle, Alnwick; Mr J. R. Lake, E. Ord; Mr A. R. Levett, Wooler; Miss Lewis, Ayton; Mr J. C. Mather, Manderston; Mr R. Middlemas, Alnwick; Mr G. H. Mills, Greenrigs; Mr A. P. Oliver, Jedburgh; Mr W. Oliver, Jedburgh; Mrs Oliver, Edgerston; Major Scott-Plummer, Sunderland Hall; Miss Prentice, Wooler; Mr T. C. Smith, Berwick; Mr J. E. T. Smith, Berwick; Mr J. Spark, Melrose; Mr W. Spark, Earlston; Mrs W. Spark; Miss Stevenson, Tuggal Hall; Miss M. Stevenson; Mr E. E. P. Taylor, Pawston; Mr G. Taylor, Chapelhill; Mr J. Tweedie, Berwick; Miss Usher, Yetholm; Miss Waller, Hauxley Hall.

Though somewhat dull in the earlier part, the day was fine throughout, and a cool breeze added to the pleasure of the tramp across the hills.

The party met at Wooler railway station at 11.14 and drove to Middleton Hall, where it was received by Mr George P. Hughes, the senior member and an ex-President of the Club. The President offered the congratulations of the Club to Mr Hughes on his having completed seventy years of membership, a record in the history of the Club. Mr Hughes expressed his appreciation of the visit and kind wishes of the Club, and referred to some of his associations with it in the past.

Leaving Middleton Hall, the cars climbed the steep ascent and entered the beautiful valley of the Harthope Burn. At Langlee the members began their walk along a moorland track, crossing the burn and ascending the hillside beyond. About 1.20 p.m. Threestoneburn was reached, lying in a wide valley, with Dunmoor to the south, Hedgehope and Cheviot to the west, and the Langlee Craggs to the north.

The stone circle of Threestoneburn, described by Tate * as the most important in Northumberland, stands on a promontory between the Threestone Burn and a small tributary on its left bank. It is some 1020 feet above sea-level. The ground slopes gently to the east. The diameter of the circle is 113 feet; it consists of thirteen stones, five of which are still erect. The height above ground of the upright stones is 4 feet 5 inches, 4 feet, 2 feet 11 inches, 2 feet 9 inches, and 2 feet 9 inches. The larger prostrate stones measure 5 feet 3 inches, 5 feet 3 inches, 4 feet 6 inches, and 3 feet 3 inches in length. Sixty feet to the north of the circle lies a large boulder measuring 4 feet by 4 feet and some $1\frac{1}{2}$ feet in height; to the north-west of it lie two boulders of similar size and another rather less. The plan given by Tate shows the circle in the same state as at present. He states that excavation revealed no burials, but that charcoal had been strewed over the original surface, and that a portion of a small grey flint knife was found. On the summit of Hedgehope to the west is a large cairn, also belonging to the Bronze Age, and doubtless covering the grave of some chief of that period.

While the party was at the circle there were exhibited the following objects of interest:—(1) Letter by Sir Humphry Davy relating to matters connected with safety in mines; the letter was brought to the meeting by Mr R. Middlemas, and belongs

* *History of Alnwick*, vol. i, p. 24.

to Mrs Gray, East Bolton. (2) Medal commemorating the taking of Porto Bello, on the Isthmus of Darien, by Admiral Vernon in 1739: *Obv.*, Figure of Admiral Vernon holding a baton; legend: "Admiral Vernon. In Porto Bello there's not his fellow." *Rev.*, Six ships and a representation of the town; legend: "He took Porto Bello with six ships only.—Nov. 22, 1739." The medal was found by Miss Allan (then of Bowshiel,



FIG. 1.—STONE CIRCLE AT THREESTONEBURN.

"S" indicates stones remaining erect.

Cockburnspath, now of Duns) in a field at Bowshiel. It was on the outbreak of this war that Walpole made the remark, "They may ring their bells now; they will soon be wringing their hands." The expedition ended in disaster. (3) Dr M'Conachie sent to the meeting the impression of a seal which had been found near the old tower of Muircleuch near Lauder. It bears the figure of a demi-lion rampant.

After the company had rested for a space within the circle,

and had partaken of lunch, the walk was continued to Ilderton-moor. To the left soon appeared the Dod, a grassy hill, familiar to those from the neighbourhood of Berwick as being the east-most height of the Cheviot range as seen from that locality.

On the right bank of the Harelaw Burn, about five-eighths of a mile west of Calder, there was noticed a crescentic rampart and trench, apparently enclosing a small fort on the edge of the steep bank.

At Ildertonmoor the cars were rejoined and the party drove to Ilderton, where the church was visited. It contains little of interest, but the lower part of the tower is of the Transition Period. In the floor beneath the tower is a grave-slab bearing an incised cross which rises from a base resembling that shown on a slab at Corsenside; beside the shaft of the cross is a sword. Outside the church, to the west, lies another slab, bearing a much-weathered cross and shears.

The party then drove to Wooler, where 29 sat down to tea in the Cottage Hotel. The following were elected members of the Club:—Miss Emily Clay, Tillmouth, Cornhill-on-Tweed; Mrs George Leather-Culley, The Green Gate, Alnwick; Mrs Elizabeth Fleming, British Linen Bank House, Berwick; Captain Lord Edward Hay, Purves Hall, Greenlaw; Miss Helen Mary Logan Home, Edrom House; Mr David Patrick Milne Home, Irvine House, Canonbie; Miss Augusta Drevar Fleming Leishman, Linton Manse, Kelso; Sir Leonard John Milburn, Bart., Guyzance, Acklington; Mr John Morrison, Wellbank, Melrose; Mr William Edmeston Riddell, Sanson Seal, Berwick; Mrs Eva Doxford Short, Old Graden, Kelso; and Mr Edward Stokoe, School House, Embleton.

2. THE UPPER WHITADDER.

The second meeting was held in the Upper Whitadder valley on Thursday, 23rd June. The attendance was unusually large, about 130 members and friends being present. The long line of 50 cars formed a somewhat unusual sight in this remote district.

The members present included Captain Fullarton James, President, with Mrs James and Miss James; Colonel Leather, Rev. J. F. Leishman, M.A., and Mr J. A. Somervail, ex-Presi-

dents ; Mr Craw, Secretary ; Dr M'Whir, Editing Secretary ; Mr J. B. Duncan, Librarian ; Mrs Aitchison, Lochton ; Mr W. Angus, Edinburgh ; Mme Bertalot, Ayton ; Lieut.-Col. Bishop, Kelso ; Mrs Bishop ; Mrs J. Bishop, Berwick ; Miss Boyd, Faldonside ; Mr J. G. Carter, Duns ; Mr W. R. Caverhill, Crichness ; Mrs Cowan, Yetholm ; Mr F. R. N. Curle, Melrose ; Mrs Darling, Priestlaw ; Mr W. Douglas, Edinburgh ; Mrs Erskine, Bonkyl Lodge ; Mrs Erskine, Melrose ; Mrs Biber-Erskine, Dryburgh ; Mr A. A. Falconer, Duns ; Mrs Fleming, Berwick ; Mr W. Fortune, Ayton ; Mr G. J. Gibson, Gullane ; Mr T. Gibson, J.P., Edinburgh ; Mr T. H. Gladstone, Berwick ; Mrs Glegg, Maines ; Mr T. Gowland, Melrose ; Miss M. Gray, Berwick ; Miss M. Gray, Bankhill, Berwick ; Miss Greet, Norham ; Mr P. B. Gunn, jun., Oxnam ; Mr J. Herriot, Duns ; Major G. J. Logan Home, Edrom House ; Miss Logan Home ; Miss Hope, Morebattle ; Mrs Ross Hume, Ninewells ; Miss Leishman, Linton ; Mr A. R. Levett, Wooler ; Captain A. R. M'Dougal, Blythe ; Rev. A. M'Keachie, M.A., Chirnside ; Mr W. J. Marshall, Berwick ; Miss Martin, Ord Hill ; Mr J. Meikle, Langrig ; Mr W. C. Millar, Berwick ; Colonel Molesworth, Cruicksfield ; Mrs Molesworth ; Rev. M. M. Piddocke, Kirknewton ; Rev. Canon Roberson, Norham ; Mrs Roberson ; Lieut.-Col. Scott-Ker, Melrose ; Mr A. R. Simpson, Edinburgh ; Mrs Simpson ; Mr T. C. Smith, Berwick ; Mr J. D. Smith, Peelwalls ; Mrs Smith ; Miss Wilson Smith, Pouterlany ; Mr J. Spark, Melrose ; Mr W. Spark, Earlston ; Mrs Spark ; Miss Stevenson, Tuggal Hall ; Miss M. Stevenson ; Mr T. Stirling, St Boswells ; Mr T. A. Swan, Duns ; Rev. A. E. Swinton, M.A., Coldstream ; Mrs Swinton ; Mr G. Taylor, Chapelhill ; Mr E. E. P. Taylor, Pawston ; Mr J. Tweedie, Berwick ; Miss Usher, Yetholm ; Mr T. Wilson, Hawick ; Mrs Wilson ; and Miss Scott Wyllie, Galashiels.

The weather for the greater part of the day was very fine and the Lammermoors were seen under the best conditions—bright sunshine with the shadows of large clouds passing over the moorlands. Rain fell later, and at the close of the meeting members were glad of the hospitable refuge of Priestlaw farmhouse.

Leaving Duns railway station at 9.25, the party drove by Ellemford and Cranshaws to the foot of the steep hill known as

the Hungry Snout. Members then left the cars and walked up Snailsleuch to the Cooper's Loup. At this point the stream passes through a cleft in the rock some 3 feet wide and 10 feet deep. Two large boulders have rolled into the cleft, becoming wedged there, and at the upper end the stream runs over a sloping mass of rock and falls into a pool some six feet in depth. Between the foot of the sloping rock and the surface of the pool is a space of about a foot, hidden from above by the cascade. Behind this there is a space large enough for a man to stand completely concealed. The water of the pool would come up to his chest, and he would be able to watch through the cascade any happenings without. It is here that a Covenanter is said to have hidden and eluded pursuit. The man was a cooper in Garvald and fled across the hills to escape arrest. He jumped into the pool and remained concealed in the cave, which we may suppose was known to him from the excursions of boyhood days.* Unfortunately a mass of gravel brought down by recent floods had almost filled the pool, making it difficult to realise that anyone could have found space in which to hide.

From Snailsleuch the party climbed the steep slope to the east in order to see the collection of hut circles on the moor. The site contains three large irregular stone enclosures and about a score of hut circles. A number of small cairns probably represent burial places, and the area has been cut off to the north and east by an earthwork of small dimensions running from Snailsleuch to the south-east.†

The party then crossed the Whitadder and ascended the steep slope to the fort of Friar's Nose. The fort is pear-shaped and measures 136 by 95 yards. To the west where the ground is level there are four ramparts of earth. The main entrance is to the north-west, there is one to the south-west and another to the north-east. About twenty-one hut circles are to be traced within the fort. At the east side are the foundations of a rectangular enclosure measuring internally 40 feet 9 inches by 14 feet 6 inches. The fact of its lying due east and west does not warrant the conclusion that this has been an early

* See *The Covenanters of the Merse*, Rev. J. Wood Brown, M.A., p. 168.

† See *Hist. Ber. Nat. Club*, vol. xxi, p. 206; *Hist. Mon. Com. Report East Lothian*, No. 184.

church; but such a construction in a fort associated with the name of Killmade (the church of Modan?) is perhaps not unworthy of note. The earliest churches in Ireland occur in raths or cashels associated with hut circles, and Dr Joseph Anderson was of the opinion that a similar association might be found in Scotland.

Returning to the cars the company followed the road up the steep ascent of the Hungry Snout and stopped at Mill-knowe. Here a farm road was followed on foot, and in about half an hour the ruins of Gamelshiel Tower were reached. Lunch was taken in the secluded glen. In the fourth volume of our *History* (p. 291) Dr James Hardy quotes a story connected with this tower, related by Chambers in *The Picture of Scotland*. The lady of Gamelshiel was walking one evening in the glen a short distance below the tower when she was suddenly attacked and killed by a wolf, which came out of the wood with which the locality was at that time covered. Her body was buried by her distracted husband in the courtyard of the tower, where he could look down on the grave from his chamber window and mourn his loss. A hundred years ago the stone covering the grave was said to be still in existence, but it has long been removed. The owner of the tower at that time is said to have been a Home, descended from the Wedderburn family. In 1505 the lands were in the hands of a family called Forrest, but in 1679 the Homes are found in possession. The ruins consist of the north and south walls, which stand up like the fangs of a wolf by the edge of a small stream.

The party next drove to Priestlaw, stopping by the way to visit the ruins of the Grange of Penshiel. The main building is a vaulted chamber in ruins, measuring 82 by 25 feet. There are two windows at either end, and the door, which has three bolt-holes, is in the north wall. A series of holes in the exterior of the south wall suggests a wooden erection on this side. At the south-east corner are traces of a forestair. A hundred yards west of the Grange is a setting of four large stones which have probably formed part of a stone circle. Four more stones lie some 60 yards to the south of this setting, and may have formed another circle.

Rain was falling when the party reached Priestlaw, where some 75 members were welcomed by Mrs and Miss Darling,

whose hospitality in providing for so large a number was warmly appreciated. Captain James, on behalf of the Club, thanked Mrs Darling for her great kindness and hospitality.

There was exhibited a jet necklace recently found in a cist at Kyloe. The beads had been collected from the finders by Colonel Leather, who also secured the fragments of a food-vessel urn. Mr P. B. Gunn brought to the meeting a portion of an unusually small stone axe, apparently of claystone and measuring only 1 inch across the face. The original length was probably about $2\frac{1}{4}$ inches. The axe was found near Shot-head, Oxnam.

In the course of the day's walk the Bog Stonecrop (*Sedum villosum*) was found on the way to Gamelshiel. An adder was killed in Snailsleuch by a lady of the party.

3. BOTHAL, NEWMINSTER, AND MITFORD.

The third meeting was held at Morpeth for the purpose of visiting Bothal, Newminster, and Mitford on Thursday, 21st July. Fifty-seven members and friends were present including Captain Fullarton James, President, and Mrs James; Mr G. G. Butler, M.A., Rev. J. F. Leishman, M.A., and Mr Howard Pease, ex-Presidents; Mr Craw, Secretary; Dr M'Whir, Editing Secretary; Mrs Bishop, Kelso; Mr C. H. Hunter Blair, M.A., F.S.A., Newcastle; Mr Parker Brewis, F.S.A., Newcastle; Mr J. Cairns, Alnwick; Mr J. W. Carr, Horncliffe; Miss Fenwicke Clennell, Barmoor House; Miss A. Fenwicke Clennell; Mrs Cowan, Yetholm; Mrs Cresswell, Hauxley Hall; Mrs Leather-Culley, Alnwick; Mrs Erskine, Melrose; Miss Gray, Berwick; Mr H. B. Herbert, Fallodon; Miss Herbert; Mrs Holderness, Alnwick; Miss Holmes, Berwick; Miss Hope, Morebattle; Mr R. Kyle, Alnwick; Miss Leishman, Linton; Mr A. R. Levett, Wooler; Rev. P. S. Lockton, Melrose; Mr C. P. Martin, The Thirlings; Mrs Martin; Miss Martin, Ord Hill; Mr R. Middlemas, Alnwick; Hon. Lady Parsons, London; Rev. Canon Roberson, Norham; Mrs Roberson; Mrs Short, Old Graden; Mrs Stevenson, Tuggal Hall; Miss Stevenson; Captain Tate, Brotherwick; Mr E. E. P. Taylor, Pawston; Mr E. Thew, Gosforth; and Miss Waller, Hauxley Hall.

The day was warm and somewhat sultry, but the company

was fortunate in escaping the heavy rain which fell after the close of the meeting.

Gathering at Alnmouth railway station at 10.30, members drove four miles to Bothal where they were met by Mr Hunter Blair, who led the party to the Castle, which had been kindly opened for the Club by Mr William C. Sample.

In early times Bothal belonged to the family of Bertram; by marriage it came into the possession of Lord Ogle, and by a subsequent marriage it eventually passed to the ancestor of the present owner, the Duke of Portland.

As at Dunstanburgh, the chief feature of interest is the gatehouse, which dates from the Decorated Period. On the battlements and on the wall beneath is carved a series of shields of great interest. The passage through the gatehouse is 33 feet in length, the vaulted roof having eight pointed ribs; it leads to the courtyard which extends for about 60 yards towards the Wansbeck. Round this courtyard were grouped the domestic buildings. The party ascended the gatehouse tower to the Great Chamber which is placed above the archway.

After an interval for lunch, members walked to the church of St Andrew. Although Norman and pre-Norman remains have been found on the site, the present church dates from the Early English Period, remodelled in the Perpendicular Period. In the chancel are three cusped-headed sedilia and a piscina. The windows of the aisles contain some fine original stained glass. The most interesting monument is the sixteenth-century altar-tomb with the alabaster effigies of Ralph, 3rd Lord Ogle, and his wife, Margaret, daughter of Sir William Gascoyne of Galthrop, Co. York. He died in 1513.

Leaving Bothal, the party drove to Newminster. Here they were welcomed by Sir George Renwick, Bart., D.L., who since 1911 has carried out extensive excavations on the site of the Cistercian Abbey of Newminster. The Abbey was an offshoot of Fountains' Abbey, and was founded by Ranulph de Merlay of Morpeth Castle in 1138. Previous to excavation, the only part left standing was a doorway in the north wall of the north aisle, an insertion of late fourteenth-century date. In 1878 some excavation was made by Mr Woodman in the chancel and chapter-house.* The later work of Sir George Renwick has laid bare most

* *Proc. Soc. Ant. Newcastle*, 2nd ser., vol. iii, p. 112.

of the foundations. The doorway of the chapter-house and some fine arcading in the cloisters have been re-erected. The great depth of soil and debris made excavation a laborious process, and the south wall of the church could not be traced. Many grave-slabs were found, some of which are still exposed.* One in the north transept bears the inscription HIC : JA[CET] : [J]OHANE[S] . . . ROYS : LORAIN : CUI : ANIMA : REQUIESCAT : I : PACE : AME(N). Another in the north walk of the cloisters bears HIC . JACET . DNA : DE STANTON : +JVANA : CORBET ; at the same place another slab bears a sword and the arms of the lady's husband, Sir William Corbet—three ravens (two and one). One of the stones found bears a cross with a sword at one side and a curious object resembling a golf-club at the other. A similar object at Woodhorn has been figured elsewhere † with the suggestion that it represents a palmer's staff. Other examples are said to occur at Aldwick le Street, Yorks, and Lanchester, Co. Durham. Other slabs at Newminster bear swords and chalices. In the cellarium was found an interesting hoard of 486 coins, chiefly of the reign of Edward I. ‡

After Captain James had thanked Sir George for his careful guidance and for his description of the ruins and their excavation, the party left for Mitford. Here Mr Hunter Blair described the Castle which is built on a commanding knoll.

At the church the party was under the guidance of the Rev. Canon MacLeod, who had acted as guide when the Club last visited Mitford in 1905.§ The fine Early English chancel was much admired ; the south doorway is part of the original Norman church. The treatment of the effigy of Bertram Reveley (1622) is similar in several respects to that of the effigy in Swinton church, regarding the date of which there has been some doubt. The similarity would suggest a late date for the Swinton effigy. The old bell preserved in the church is of considerable interest.

The President expressed the warm thanks of the Club to

* See *Proc. Soc. Ant. Newcastle*, 3rd ser., vol. vi, p. 210, and 4th ser., vol. iii, p. 94 (illus.).

† *A Manual of the Study of the Sepulchral Slabs and Crosses of the Middle Ages*, by the Rev. Edward L. Cutts, pl. xlv and p. 79.

‡ *Proc. Soc. Ant. Newcastle*, 4th ser., vol. ii, p. 47.

§ *Hist. Ber. Nat. Club*, vol. xix, p. 288.

Mr Hunter Blair and to Canon MacLeod before the party left on its return drive to Morpeth.

Twenty-one members, presided over by Captain James, gathered for tea at the Queen's Head Hotel. The Rev. William G. Limond, The Manse, Westruther, and Mrs Bulman, Morwick Hall, Acklington, were elected members.

4. WARKWORTH.

The fourth meeting was held at Warkworth on Wednesday, 17th August, and was largely attended, 120 members and friends being present. These included Colonel Leather and Rev. H. Paton, M.A., ex-Presidents; Mr Craw, Secretary; Dr M'Whir, Editing Secretary; Mr J. Archer, Alnwick; Rev. E. Arkless, Warkworth; Mr J. Balmbra, Alnwick; Mme Bertalot, Ayton; Mrs Bishop, Kelso; Mr C. H. H. Blair, M.A., Newcastle; Mr J. Cairns, Alnwick; Provost Carmichael, Coldstream; Mrs Caverhill, Reston; Miss H. F. M. Caverhill, Berwick; Mr W. D. Clark, W. Ord; Miss Fenwicke Clennell, Barmoor House; Mrs Cowan, Yetholm; County Alderman T. Darling, Marshall Meadows; Mrs Erskine, Melrose; Mr W. Fortune, Ayton; Mr T. Gowland, Melrose; Miss M. Gray, Berwick; Mr T. C. Halliburton, Jedburgh; Mr H. B. Herbert, Fallodon; Miss Herbert; Miss Holmes, Berwick; Major Logan Home, Edrom House; Miss Milne Home, Paxton; Miss S. Milne Home; Mr J. Hood, Linhead; Miss B. W. Hood; Mr R. G. Johnston, O.B.E., Duns; Mr R. Kyle, Alnwick; Mr J. R. Lake, East Ord; Mr A. R. Levett, Wooler; Miss Lewis, Ayton; Commander Lillingston, Horncliffe House; Rev. P. S. Lockton, Melrose; Mr J. G. Maddan, Stockport; Mr C. P. Martin, Thirlings; Miss Martin, Ord Hill; Mr R. Middlemas, Alnwick; Mr L. Newbiggin, Alnwick; Mr G. A. Russell, The Crooks; Mr T. B. Short, Waren Mills; Mr H. R. Smail, Berwick; Mrs Stevenson, Tuggal Hall; Miss Stevenson; Miss M. Stevenson; Mr J. W. Stewart, Broadmeadows House; Miss Stewart; Mr T. McGregor Tait, Berwick; Captain Tate, Brotherwick; Mr E. E. P. Taylor, Pawston; Mr E. Thew, Gosforth; Dr Voeleker, London; and Miss Waller, Hauxley Hall.

The weather was all that might be desired, the bright sunshine being specially welcome after a period of heavy rain.

Meeting at Alnmouth railway station shortly after 10 o'clock, the party drove to Warkworth, a distance of four miles. At the Castle it was met by Mr C. H. Hunter Blair, who outlined the history of the famous building and then conducted the party over its extensive ruins, explaining the plan and pointing out the features most worthy of notice.*

In 737 Ceolwulf, King of Northumberland, granted Warkworth to the monks of Lindisfarne. In the middle of the twelfth century the castle and manor were granted by Henry II to Roger, the son of Richard Fitz Eustace, constable of Chester. The King also bestowed on Roger the honour of Clavering, and the family later became known by that surname. The Castle was probably built on its present plan by Robert, the son of Roger. In 1328 Warkworth passed from the Claverings to the Percy family by Edward III making over his reversionary interest in the estate of John de Clavering to Henry Percy of Alnwick. About the middle of the sixteenth century the Castle fell into decay.

The imposing donjon which stands on a mound at the northern extremity of the courtyard forms a striking feature as seen from the town. In plan it suggests thirteenth-century design, but the architecture is that of the fifteenth century. It is a remarkable example of medieval domestic architecture. At the south end of the courtyard is the fine gatehouse, with its two semi-octagonal towers of Transitional character. The dry moat to the south has been recently cleared out by the Office of Works. From the gatehouse the high curtain-wall runs south to the Montague Tower at the south-east angle, and north to the tower called Crakefergus at the south-west angle of the Castle. The Grey Mare's Tail Tower occupies a position on the south curtain between the Montague Tower and the donjon. Opposite it in the north curtain-wall is the postern which now forms the usual entrance to the Castle. The kitchen is to the south of this postern, and farther south is the old hall at the north-east corner of which stands the Lion Tower with its huge mutilated stone lion carved above the doorway. Over the lion are the shields of Percy and Lucy, the tower having been the work of the fourth Earl of Northum-

* See the new *History of Northumberland*, vol. v, pp. 18-112; *Hist. Ber. Nat. Club*, vol. xx, p. 136.

berland between 1472 and 1489. Extending across the courtyard to the north of the Lion Tower are the foundations of the college, a building which there is reason to believe was never finished. The chapel is placed in rear of the curtain-wall to the west of the gatehouse.

At the close of Mr Blair's interesting description the members cordially responded to the vote of thanks proposed by Colonel Leather. Lunch was then enjoyed in warm sunshine in the courtyard of the Castle.

At one o'clock members gathered in the church where the Rev. E. Arkless, vicar of the parish, described the building. In 737 Ceolwulf granted the territory and church of Warkworth to the monastery of Lindisfarne; a relic of its pre-Norman period has been found on the site in the form of a stone cross. The Norman church was probably built about 1120, the chancel and the north wall of the nave belong to this period. The tower is of Transitional date, about 1200, the upper portion being added in the Decorated Period about the middle of the fourteenth century. In the Perpendicular Period the south aisle and clerestory were added towards the end of the fifteenth century. During the restoration of 1860 the church suffered much damage to its ancient features. In the south aisle is the effigy of a knight in the armour of the early fourteenth century, with a shield bearing on a cross five eagles displayed, in the dexter chief an annulet. Several fragments of old glass are preserved in the windows of the south aisle.

From the church members walked by the side of the Coquet to the Hermitage, where they crossed the river by a ferry. The interest of the walk was unexpectedly enhanced by the playing and landing of a salmon by an angler on the bank. On the cliff near the Hermitage are indicated the dates and levels of the following floods:—Feb. 9, 1831; Ap. 29, 1876; Nov. 6, 1886; and Oct. 27, 1900.

The Hermit's Chapel is about 18 feet long by 7 feet wide, and 7 feet in height. It is hewn out of the white freestone rock, the treatment of the pillars suggesting fourteenth-century work. At the east end is an altar, and in a recess to the south of it is a reclining figure of the Virgin with the Infant Christ, an angel stands at her side, at her feet is the figure of Joseph and the representation of a bull's head, close to which is a

piscina. The workmanship of an inner chapel is more rough than that of the other; it communicates with a building placed close to the rock and consisting apparently of a kitchen below and dormitory above. Members were again indebted to Mr Blair for an account of this curious and interesting construction.

Returning to Warkworth, members to the number of 29 dined at the Sun Hotel, after which they drove to Alnmouth in time to catch the evening trains.

5. HUME AND SMAILHOLM.

The fifth meeting was held at Hume and Smailholm on Thursday, 15th September. The attendance was the largest on record, 155 members and friends being present. These included Sir George Douglas, Bart., Rev. W. McConachie, D.D., and Rev. H. Paton, M.A., ex-Presidents; Mr Craw, Secretary; Dr McWhir, Editing Secretary; Mr Dodds, Treasurer; Mr Duncan, Librarian; Mrs Aitchison, Lochton; Mrs Allhusen, Beadnell Tower; Lieut.-Col. Bishop, Kelso; Mrs Bishop; Captain L. S. Briggs, Melkington; Mrs Briggs; Miss Boyd, Faldonside; Mrs Calder, Marygold; Mr J. G. Carter, Duns; Miss Caverhill, Berwick; Mrs Cowan, Yetholm; Mrs Cresswell, Hauxley Hall; Mrs Darling, Priestlaw; Lieut.-Col. Davidson, Lasswade; Mr W. Douglas, Edinburgh; Mr W. S. Douglas, Mainhouse; Mrs Douglas; Mr W. R. Easton, Jedburgh; Mrs Erskine, Melrose; Mr A. A. Falconer, Duns; Rev. D. D. Fraser, M.A., Sprouston; Mr T. Gibson, J.P., Edinburgh; Mr T. H. Gladstone, Berwick; Mrs Glegg, Maines; Mr T. Gowland, Melrose; Miss Gray, Berwick; Miss Greet, Norham; Mr P. B. Gunn, Oxnam; Mr Hay, Duns Castle; Mrs Hay; Mr G. G. Hogarth, Ayton; Major Logan Home, Edrom House; Miss Logan Home; Miss Milne Home, Paxton; Miss S. Milne Home; Miss Hope, Morebattle; Mr R. G. Johnston, O.B.E., Duns; Mrs Dixon-Johnson, Middle Ord; Mr J. R. Jones, Jedburgh; Lieut.-Col. Scott-Ker, Melrose; Mr A. R. Levett, Wooler; Rev. P. S. Lockton, Melrose; Mrs Logan, Birkhill; Mr J. T. Mabon, Jedburgh; Mr W. W. Mabon, Jedburgh; Rev. A. McKeachie, M.A., Chirnside; Mrs Marjoribanks, Rowchester; Miss Martin, Ord Hill; Mr J. C. Mather, Manderston;

Mrs Michael, Kerchesters; Mr W. C. Millar, Berwick; Col. Molesworth, Cruicksfield; Mrs Temple-Muir, Darnick; Mrs Oliver, Edgerston; Mr A. P. Oliver, Jedburgh; Mr R. R. Riddell, Berwick; Rev. Canon Roberson, Norham; Mrs Roberson; Mrs Sanderson, White House; Mrs Short, Old Graden; Mr A. R. Simpson, Edinburgh; Mrs Simpson; Miss Wilson Smith, Pouterlany; Mr J. Spark, Melrose; Mr W. Spark, Earlston; Mrs Spark; Mr T. Stirling, St Boswells; Mr E. E. P. Taylor, Pawston; Miss Usher, Yetholm; Miss Waller, Hauxley Hall; and Mr F. W. Wood, Edinburgh.

The Club was fortunate in having a day of bright, clear sunshine for the excursion, which was one depending largely on a clear atmosphere for its enjoyment. From the meeting-place at Kelso at 12.37 the party drove six miles to the village of Hume, where a number of members had already gathered. At Hume Castle the Secretary described the ruins and gave a short historical account of the Castle and of the family of Home; he was thanked on behalf of the members by Mr Hay of Duns Castle. The meagre remains were in striking contrast to the magnificent Castle of Warkworth, which formed the object of the Club's last excursion; but some compensation was obtained in the magnificent view of the Borderland from this outstanding site.

The lands of Hume formed the marriage portion of Ada, daughter of the fifth Earl of Dunbar*; she married, in the first half of the thirteenth century, William of Greenlaw, who was probably a cousin of her own. He took the name of Home from the lands, and for his coat of arms he adopted the white lion of the Earls of Dunbar, placing it on a green field in token of his lands of Greenlaw. A further addition to the family estates resulted from the marriage of Sir Thomas Home in the end of the fourteenth century to the heiress of the Pepdie family of Dunglass. The three papingoes of the Pepdies thereafter appeared on the Home shield; and, later, the second title of the Earl of Home was Lord Dunglass. Alexander, the elder son of this marriage, succeeded to the lands of Hume and

* He was descended from Cospatrik, Duke of Northumberland, who fled to Scotland in 1066. He was received by Malcolm Canmore and was created first Earl of Dunbar.

Dunglass ; and David, the younger son, founded the Wedderburn branch of the family. In 1473 Sir Alexander Home was created Lord Home. On account of the annexation by James III of the revenues of Coldingham Priory, he joined the nobles who rebelled against the King, and was present at the battle of Sauchieburn where James was killed. His son, Alexander, second Lord Home, became Great Chamberlain of Scotland under James IV, who stayed at Hume Castle for ten days in 1496. Alexander, third Lord Home, was also Great Chamberlain of Scotland. He is perhaps the best known of his family on account of his being in command of the Border men on the left wing of the Scottish army at the battle of Flodden. He was executed by Albany on a charge of treason in 1516. In revenge the Homes of Wedderburn slew the French knight D'Arcie de la Bastie, who had been made Warden of the Marches in succession to Lord Home. The head of the knight was placed on the battlements of Hume Castle. The third Lord Home was succeeded by his brother George,* whose wife unsuccessfully defended the Castle against Somerset in 1547. It was retaken later by Alexander, fifth Lord Home, who espoused the cause of Mary and had the honour of receiving her at Hume Castle in 1566. Later, however, he fought against her at Langside. In 1569 Hume Castle surrendered to the Earl of Sussex. On the death in prison of the fifth Lord Home he was succeeded by Alexander, the sixth Lord Home, who was a half-brother of Robert Logan of Restalrig and Fast Castle. He was a favourite of James VI, who raised him to the dignity of an Earl in 1605. On the death of James, the second Earl of Home, the title passed to Sir James Home of Coldenknowes. This branch of the family did not take the important part in the political affairs of the country that had fallen to the lot of the Homes since the reign of James III.

During the Commonwealth the castle of Hume was surrendered to Colonel Fenwick in 1651, after a few discharges of a culverin, in spite of the brave defiance of John Cockburn the Governor : " I know not Cromwell ; and as for my castle,

* George, fourth Lord Home, is stated by some authorities to have fallen at Pinkie. Some doubt, however, has more recently been thrown on this assertion. See *The Manuscripts of the Earl of Home*, p. 80.

it is built on a rock.”* After the restoration the castle was handed back to the Homes.

In 1766 Hume Castle was sold to the first Earl of Marchmont; it continued in the hands of his descendants till 1914. The last event of importance in its long history was the lighting here of the bonfire which gave rise to the False Alarm of 1804.

No castle of Norman date remains north of the Tweed. Hume Castle is the only Berwickshire example of the earliest type of Scottish castles, dating from the thirteenth century. These were quadrilateral fortified enclosures with curtain walls 7 to 9 feet in thickness and 20 to 30 feet in height, with square or round towers at the angles.

Most of the building as it stands to-day is recent, having been built by the third Earl of Marchmont in the end of the eighteenth century. The lower part of the walls, however, is old, some 6 feet in thickness and enclosing an area about 130 feet across. In the middle of the courtyard is a mass of masonry, the plan of which it would require excavation to determine. The well is placed to the left as one enters by the doorway in the west wall.

From Hume the party drove by Stichill to Smailholm, a distance of $7\frac{1}{2}$ miles. Here it was met by the Rev. W. L. Sime, who had acted as guide to the Club on the occasion of its last visit in 1893. Mr Sime has been minister of the parish for forty years, and it is noteworthy that there have been only four ministers in the parish since 1743.

When the members had gathered in the church, Mr Sime gave an account of the building. It is a Norman structure, though no enrichments characteristic of that period remain. At the south-west corner is a sun-dial with date 1622. The date of the bell, which is of Dutch manufacture, is 1642. Mr Sime stated that during cleaning operations it had become evident that the original coloured decoration still remained on part of the walls beneath the present coloration.

On its arrival at Sandyknowe, the party was much impressed by the striking view of the fine old tower, on its rocky eminence, overlooking the tarn in which it was reflected. Mr Sime here gave an account of the tower, and by the courtesy of the Earl

* See *Cromwell's Scotch Campaigns, 1650-51*, by W. S. Douglas, p. 230; *Cromwell's Letters and Speeches*, T. Carlyle; Letters, clxii-clxxxi.

of Ellesmere, members were able to inspect the building, and to climb to the battlements which command such a magnificent view of the Borders.

Smailholm, from the beginning of the fifteenth century, was a possession of the Pringle family; early in the seventeenth century it passed to the Scotts of Harden. It is now in the possession of the Earl of Ellesmere. The tower, which is 57 feet in height, is of four stories and has the remains of a barmkin to the west. The lower and uppermost stories are vaulted. In the south wall is the doorway with an iron yett; the stair is in the south-east angle.

Mr Sime referred to Sir Walter Scott's connection with Sandyknowe, which was tenanted by his grandfather and where some of his early years were spent. The lasting impression made by the old tower in the boy's mind is evidenced in *Marmion* and in *The Eve of St John*.

Dr M'Conachie thanked Mr Sime for the manner in which he had acted as guide at the church and at the tower.

Returning to Kelso, 16 sat down to dinner at the Cross Keys Hotel. Miss Fanny Bromby, 119 High Street, Berwick, and Mr James Paterson, 15 Castlegate, Berwick, were elected members.

6. BERWICK.

The annual business meeting was held at Berwick on Wednesday, 12th October, when 77 members and friends attended. Present: Captain Fullarton James, President; Mrs and Miss James; Rev. J. J. M. L. Aiken, M.A., B.D., Colonel Leather, Rev. J. F. Leishman, M.A., Rev. Wm. M'Conachie, D.D., and Rev. Henry Paton, M.A., ex-Presidents; Mr Craw, Secretary; Dr M'Whir, Editing Secretary; Mr J. B. Duncan, Librarian; Mrs Aitchison, Lochton; Col. Bishop, Kelso; Mrs Bishop; Mr J. Bishop, Berwick; Mrs Bishop; Miss Bromby, Berwick; Mr J. Cairns, Alnwick; Mr J. G. Carter, Duns; Mr R. Carr, Berwick; Mr J. W. Carr, Horncliffe; Miss Caverhill, Berwick; Mr W. D. Clark, West Ord; Mrs Cresswell, Hauxley Hall; Mrs Leather-Culley, Alnwick; Mrs Darling, Priestlaw; Captain Davidson, Galagate; Mrs Fleming, Berwick; Miss Fleming, Kelso; Mr W. Fortune, Ayton; Miss Shirra Gibb, The Roan; Mr G. J. Gibson, Gullane; Mr T. H. Glad-

stone, Berwick ; Mrs Glegg, Maines ; Miss M. Gray, Berwick ; Miss M. Gray, Berwick ; Miss Greet, Norham ; Miss Grieve, Lauder ; Miss Hayward, Galashiels ; Miss Holmes, Berwick ; Miss Milne Home, Paxton ; Miss S. Milne Home ; Miss Hope, Morebattle ; Mr R. G. Johnston, O.B.E., Duns ; Mr R. Kyle, Alnwick ; Miss Leishman, Linton ; Mr A. R. Levett, Wooler ; Miss Lewis, Ayton ; Mrs M'Conachie, Lauder ; Mr J. C. Mather, Manderston ; Mr W. C. Millar, Berwick ; Dr Muir, Selkirk ; Rev. M. M. Piddocke, Kirknewton ; Major Scott-Plummer, Sunderland Hall ; Mr R. R. Riddell, Berwick ; Rev. Canon Roberson, Norham ; Mr T. B. Short, Warren Mills ; Mrs Short, Old Graden ; Mr H. R. Smail, Berwick ; Mr J. D. Smith, Peelwalls ; Mr T. M. Tait, Berwick ; Mr E. E. P. Taylor, Pawston ; Mrs Turnbull, Lauder ; Miss Waller, Hauxley Hall ; Mr T. Wilson, Hawick ; and Mrs Wilson.

Members gathered at the Tweedmouth end of the old road bridge at 12.15, and were met by Mr A. M. Meldrum, Assistant Engineer, who conducted the party over the works of the new bridge, explaining the methods of construction employed. The arch of the northmost or widest span of the bridge had been completed since the last visit of the Club, but the decking of this portion was still incomplete. Considerable trouble and some damage had been caused by the flood of 23rd September, when many large trees and other wreckage were brought down by the river. Owing chiefly to delay caused in making the foundation of pier D, it had been impossible to complete the bridge in July 1927. The work is expected to be finished in March 1928.

At 1.30 members to the number of 53 lunched at the King's Arms Hotel, where the President proposed the time-honoured toasts of "The King" and "The Club." An adjournment was then made for business to the small assembly room of the hotel.

The Secretary intimated apologies for absence from Lady Biddulph ; Mrs Erskine, Melrose ; Mr Howard Pease ; Mr J. A. Somervail ; Mr R. H. Dodds, Treasurer ; Mr W. Douglas, Edinburgh ; and Mr H. B. Herbert, Fallodon. Captain Fullarton James read the list of members of the Club who had died during the year and paid a special tribute to the memory of Mr Hodgson. He then delivered the Presidential Address, which

was listened to with evident appreciation by all present. He nominated as his successor Major Charles H. Scott-Plummer of Sunderland Hall, who, in accepting office, thanked Captain James and the members present for the honour done to him. The members responded heartily to his vote of thanks to Captain Fullarton James for his address. The Secretary then read the Report as follows:—

REPORT.

During the year 1927 the Club has been fortunate in having fine weather for all the field meetings, rain falling only in the latter part of one meeting. The average attendance has been 107. At the Hume and Smailholm meeting 155 members and friends were present; this so far as is known forms a record for the Club, exceeding the attendance of 138 at Chillingham in 1923.

Since our business meeting a year ago the Club has suffered by the death of 7 members: Mr George Bolam, Alnwick; Hannah, Lady Elliott of Stobs; Mr Philip MacLagan Henderson, Berwick; Rev. Peter Geddes Hendry, M.A., Paxton; Mr John Crawford Hodgson, M.A., Alnwick; Mrs Burn-Murdoch, Edinburgh; and Mr David Veitch, Duns. The death of Mr Hodgson has been a severe loss to the Club; he acted as Editing Secretary from 1913 to 1922, and the volumes of our *History* contain many papers from his pen. The value of his help and the charm of his friendship remain as a memory to many of us.

The membership of the Club has been maintained at 400, in addition to which there are 6 honorary lady members, 1 corresponding member, 2 associate members, and 10 subscribing libraries. There are at present 6 names on the waiting list.

The following records are to hand:—

Ornithology—WRYNECK (*Yunx torquilla*, L.).—The rarest bird to be reported in the district this year is the wryneck. It was seen by Mr Whyte at the Grange on 15th May; the fulness of Mr Whyte's description of the appearance, note, and movements of the bird leaves no doubt as to its identity. Only four of this species have been previously claimed for Berwickshire, one being seen at Milne Graden on 31st July 1887, and another at Cockburnspath on 13th May 1899.

HEN-HARRIER (*Circus cyaneus*, L.).—A female was shot at Fenwick in October 1926, when two more were seen near the same place.

KITTIWAKE (*Rissa tridactyla*, L.).—A kittiwake ringed at the Farne Islands on 30th June 1924 was shot at Tikkoraluk, Gross Water Bay, Labrador, on 28th October 1925. The record is not the first of its kind as a kittiwake ringed on the Farnes on 28th June 1923 was reported at Horse Island, St Barbe, Newfoundland, on 2nd August 1924.

Mr Dodds reports that 77 common cormorants, 6 shags, 38 goosanders, and 1 seal were killed on the Tweed and its tributaries during the year.

Entomology.—A DEATH'S-HEAD MOTH (*Acherontia atropos*) is reported by Canon Roberson at Norham on 2nd September.

Archæology.—The most notable discovery in the district has been that of a cist of the Bronze Age found on 10th June near the edge of a cliff at a quarry at West Kyloe. The cist lay north and south and measured 2 feet 4 inches by 1 foot 5 inches; it was 1 foot 4 inches deep. The contents were fragments of bones, a broken food-vessel urn, and a jet necklace. The urn was of coarse yellowish clay, it was encircled by three raised mouldings and was ornamented by short impressions diagonally placed. The necklace was composed of 2 triangular plates, 4 trapezoidal plates, over 50 fusiform beads, 1 cylindrical bead, and 1 pendant bead of triangular form. The cylindrical bead appears to be unique. One of the fusiform beads is somewhat flattened, with a perforation at the middle of one side running into the longitudinal perforation. The point of one of the triangular plates had been broken and somewhat rudely repaired by a large hole having been made from one side to the other. None of the beads or plates is ornamented in any way.

Jet necklaces are of rare occurrence, only eight having been found in over twelve hundred Bronze Age graves excavated in Yorkshire. They seem to have been more frequently found in Scotland. One was found in a cist at High Cocklaw near Berwick in 1900 *; only one is recorded for Berwickshire, being found at West Morriston in 1846.

Another Bronze Age cist was found on 29th August at Tweedmouth in making the road leading to the new bridge. The

* *Hist. Ber. Nat. Club*, vol. xvii, p. 198.

position is on the roadway close to the footpath at its north side and 21 yards from the south end of the bridge. The cist lay due east and west and measured 3 feet 10 inches in length by 1 foot 6 inches in width at the west end, and 1 foot 4 inches at the east end; it was 2 feet 10 inches deep and was much wider at the bottom than at the top, the bottom width being 2 feet 5 inches at the west end and 2 feet 3 inches at the east end. The cist was formed of four large sandstone slabs and was unpaved. The cover-stone was broken. Clay had been used as luting at the corners. The only contents were two femur bones and fragments of charcoal.

Publications.—The following recent books deal with our district :—

Northumbrian Crosses of the Pre-Norman Age, by W. G. Collingwood, M.A., F.S.A.

Northumbria's Decameron, by Howard Pease, M.A., F.S.A.

The Crosswood Deeds, being vol. ii of the Calendar of Deeds and Documents (The National Library of Wales), contains documents relating to fishing rights at Berwick-on-Tweed.

In conclusion may I draw the attention of our members to the following letter which was sent to me as Secretary of the Club.

ROYAL ANTHROPOLOGICAL INSTITUTE,
52 UPPER BEDFORD PLACE,
LONDON, W.C.1.

Sir,—In the summer of last year *The Times* published a letter from Lord Onslow drawing attention to the fact that there must be in many country houses in England objects of anthropological interest, brought or sent home during the nineteenth century by Soldiers, Sailors, Administrators, Explorers, Traders, Settlers, and all those who took part in the development of the British Empire. With the progress of civilisation and the adoption of European- and American-made goods, the uses and history of these articles are in great danger of being forgotten; indeed, unless some effort is made, many of them must fall into complete oblivion before another generation passes.

The Royal Anthropological Institute has appointed a Committee, of which Lord Onslow is the Chairman, to endeavour to prevent this catastrophe taking place and to preserve the history and identity of "curios" of the kind mentioned for future generations. But our difficulty is to bring this matter to the notice of the owners of these half-forgotten articles, and we are, therefore, venturing to address ourselves to your Society with a view to soliciting your aid. We would ask you if you would be willing to draw the attention of your members to our efforts, and to ask them,

should they possess, or know of anyone who possesses, articles of the nature described, to communicate with me at the above address as suggested in a later letter from Lord Onslow addressed to *The Times*, a copy of which is appended for convenience of reference.

I am, Sir,

Yours faithfully,

E. N. FALLAIZE,
Hon. Sec.

TRAVELLERS' TREASURES.

ADVICE FOR OWNERS.

To the Editor of "The Times."

Sir,—Some months ago (May 29 last) you were good enough to give a place in your columns to a letter from me calling attention to the immediate necessity of preserving some record of articles of anthropological interest in private hands. The need for some action of this kind was emphasised in a leading article which you published on the subject, in view of the fact that, as time goes on, and the generation who brought home "curios" from distant lands passes away, recollection of the uses to which the articles were put and the circumstances in which they were acquired will become forgotten. There must be many such "curios"—some, perhaps, of unsuspected value—lying forgotten in country houses all over the country.

I am glad to inform you that the matter has attracted the attention of the Royal Anthropological Institute, and a committee has been formed, of which the Institute has done me the honour to invite me to become chairman, to render any assistance in the power of the Institute to owners of such "curios." Should any owners of specimens of this kind care to communicate with the hon. secretary of the Royal Anthropological Institute, Mr E. N. Fallaize, 52 Upper Bedford Place, W.C.1, the Institute would be happy to render any assistance or advice which lay in their power in identifying the articles and affording any information of interest to the owners in regard to them.

Your obedient servant,

ONSLOW.

107 ST GEORGE'S SQUARE, S.W.,

December 28.

In the absence of Mr Dodds, the Treasurer, the financial statement was read by Mr Duncan. It showed a profit on the year's working of £69, 13s. 2d., and a nett estimated credit balance of £192, 17s. 1d. The statement was passed by the meeting.

The election of office-bearers was then considered. The President expressed the regret of the Club at the retirement of the Secretary; Dr M'Whir and Dr M'Conachie also gave expression

to their regret. After the Secretary had shortly referred to the subject and had thanked the members and office-bearers of the Club for their unfailing support during his seven years of office, Mr Aiken proposed and Dr M'Whir seconded that the appointment of a secretary be remitted to a committee. This was agreed to, the committee to consist of the present officials, with the addition of Mr Aiken and Mr J. Bishop. The other officials of the Club were reappointed as follows: Editing Secretary, Dr M'Whir; Treasurer, Mr Dodds; Librarian, Mr Duncan.

There being one vacancy in the membership, Mrs David A. Veitch, Barniken, Duns, was elected.

Mr John Bishop then read his report as delegate to the meeting of the British Association, dealing chiefly with the evolution theory. Rev. H. Paton drew attention to certain points in the line of argument which he considered were not conclusive. Mr Bishop was thanked by the President for his report, and the meeting appointed Mr Butler as its delegate to the meeting of the Association in 1928.

Mr Duncan drew attention to the inadequacy of the present library accommodation at the Museum, and to the fact that the Museum authorities desired the use of the room at present let to the Club. He proposed that authority be given to take a room at an approximate rent of £10. Dr M'Whir seconded, and this was agreed to.

Several suggestions for places of meeting for 1928 were made. It was remitted to the President and the Secretary to make the necessary arrangements.

Mr Leishman exhibited a framed drawing of Haughead House. Mr Bishop brought to the meeting a small sixteenth-century muzzle-loading gun or falconet, with a breech handle, and a recoil block on the under side. The total length is 4 feet $9\frac{1}{2}$ inches, and the bore is $1\frac{1}{2}$ inches in diameter. It was recently dug up near the site of Berwick Castle. There was also exhibited an iron spear-head, $8\frac{3}{4}$ inches in length, probably of sixteenth-century date. It was sent by Mr Craigs, and was found at Hindhope, Roxburghshire. Photographs were shown of the Kylvie jet necklace and urn, and of the timbers of the old wooden bridge recently exposed below the new bridge at Berwick. (Plate X.)





THE LEPIDOPTERA OF NORTHUMBER- LAND AND THE EASTERN BORDERS.

By GEORGE BOLAM.

Continued from Vol. XXV, p. 573.

NOCTUINA.

1. *GONOPHORA DERASA*. Buff Arches.—Seems scarcely to reach the north of Northumberland, and there are no records from the Scotch side of the Border.

It was taken by Bold and others in the neighbourhood of Newcastle in 1871 and 1872, and occurs on the Durham side of Tyne ; but the only recent records known to me for Northumberland are one which I found at Kielder on 26th July 1918, and one got at Houxty the same autumn.

2. *THYATIRA BATIS*. Peach Blossom.—Widely distributed over the district ; most of our collectors have taken it, but seldom more than one or two in a season.

For Northumberland, Robson gives several Tyneside localities ; Hexham, Lesbury, Meldon Park, and Morpeth ; to which I can add Bilton, Adderstone Hall, Kyloe, Berwick, Ancroft, and Wooler, all only single specimens at a time. Selby got it at Twizell.

For Berwickshire, Ayton, Eyemouth, Cockburnspath, Preston, Duns ; and for Roxburghshire, Cherrytrees, Hawick, and Jedburgh. About Galashiels it is fairly common.

3. *CYMATOPHORA DUPLARIS*. Lesser Satin.—Widely distributed but always rather scarce.

For Northumberland, Robson records it from Jesmond and Netherwitton ; I used to beat the larvæ, not very uncommonly, from birch at Kyloe and Newham Bog, from about 1891 on-

wards, and collected a few in the same manner at Lintley on South Tyne, in 1916. On 26th July 1918 I found a moth at Kielder, and Mr W. G. Watson took six at Sidwood between 18th June and 15th July 1920. Mr J. R. Johnson takes it on Prestwick Car, including black examples.

In Berwickshire it has been taken at Eyemouth, Ayton, Grants-house, Cockburnlaw, Duns, and Preston.

In Roxburghshire, near Yetholm, and by Mr W. Renton at Hagburn Glen, Teviotdale.

4. *C. FLUCTUOSA*. Satin Moth.—Has not previously been recorded for the district, but I beat several of the moths from bushes of birch and alder at Lintley, on South Tyne, on 3rd July 1916. And in the autumn of 1890 and 1891 collected larvæ on birch at Newham Bog which I felt confident at the time were of this species; an opinion which Professor Heslop Harrison now shares from an inspection of the drawings then made, which have remained in my Journal ever since. But although some of them turned to pupæ none produced moths.

5. *C. OR.* Poplar Lutestring.—Another species which has not hitherto been recorded for the district, though over the Cumberland border it has occurred no further away than the neighbourhood of Brampton, Longtown, and Carlisle.

The only time I have met with it in Northumberland was on 26th July 1918, when a moth was taken at Kielder.

On the west of Scotland it does not appear to be rare, locally, even as far north as Sutherland; but we have no records for our Border counties.

[*C. OCULARIS*. Figure-of-80.—This is so exclusively a south-country species, not hitherto recognised north of Norfolk, that it cannot properly be included here on the strength of a single larva taken at Newham Bog on 3rd September 1891 (a drawing of which is still preserved in my Journal), despite the confidence we then felt that it was *C. ocularis*; but the circumstance is worthy of mention to put younger entomologists on their guard, and that it may be remembered to our credit should the species some day be proved to be an inhabitant of Northumberland.]

6. *ASPHALIA DILUTA*. Lesser Lutestring.—Not rare, locally, on the Durham side of Tyne, or in the east of Cumberland, but I know of no instance of its capture in Northumberland except at Jesmond (as mentioned by Robson), and none for the Borders. In September 1917 I took a newly emerged specimen near Alston, within a mile of the Northumberland boundary.

7. *A. FLAVICORNIS*. Yellow-horned.—Well distributed on both sides of the Border, and not uncommon, in suitable localities, where birch trees are prevalent.

Twizell, Kyloe, Newham Bog, Chillingham, Alnwick, Elsdon; Houxy, Sidwood, and other places on North Tyne; Knaresdale, Corbridge, Langley, and West Allendale may be mentioned as localities for Northumberland; Ayton, Pease Dean, and Foulden for Berwickshire; Yetholm and round Kelso for Roxburghshire.

I have elsewhere (*Wild Life in Wales*, p. 96) remarked upon the habit of this species of depositing her ova in bright sunshine, in early spring. Since that was written (in 1912) further opportunities have occurred to me of watching the same procedure in Northumberland, the eggs being all left singly, usually near the slender tips of birch branchlets, generally on their under side. The moth also frequently elects to go to sleep in such situations; where, clinging to a swaying twig, she is at the mercy of the elements, yet will retain her hold and ride out a storm of wind or frost, perhaps of many days' duration. Her bulk makes her a conspicuous object upon the branch, but her colouring, and the beautifully tufted scales on her body and thorax give her such a remarkable resemblance to a tuft of greeny-grey lichen as to present an illustration of unconscious mimicry seldom surpassed in Nature.

[*CYMATOPHORA RIDENS*. The Frosted Green.—Was recorded to have been taken in the Duns neighbourhood many years ago, but on evidence that was never regarded by local entomologists as quite satisfactory, and a mistake in identity was usually suspected. It cannot therefore be included here. Robson refers to a specimen in the Hancock Museum, from Gibside, on the Durham side of Tyne, and it has been recorded from Carlisle and elsewhere in Cumberland. Personally I know nothing of it.]

8. *ACRONYCTA LEPORINA*. The Miller.—Widely distributed over southern Northumberland and probably not so rare as the sparse records might suggest, but it has never been taken, so far as I know, except singly. I took a moth near Alwinton, on the Coquet, in June 1893; another at Bonnyrigg Hall in 1897; a single larva, on birch, at Belshill, Belford, in 1900, and another at Kyloe shortly afterwards; a moth, newly emerged, near Broomlee Lough on 27th May 1915, and found two larvæ on *Salix pentandra* at Kirkhaugh on 27th August 1918. It has likewise been recorded from Jesmond (Robson); Mr Howard Walton got a caterpillar at Stocksfield in September 1917, and Mr J. R. Johnson others at Prestwick Car in 1921. The last-named gentleman finds it more commonly in County Durham, and I have seen an occasional larva on the South Tyne above Alston.

The only record for the Scotch side of our district, known to me, was a single moth taken on Duns Law by Mr D. Patterson in 1873.

9. *A. MEGACEPHALA*. Poplar Grey.—Apparently very local, our only Northumbrian record being a moth reared by myself from a pupa got under moss on a sallow at Allerdean Mill in 1887.

For Berwickshire, Buglass recorded one from Preston in 1876, and Shaw other single specimens from Ayton and Eyemouth a few years later.

10. *A. STRIGOSA*. The Grisette.—This is such a southern species, almost confined, so far as yet known, to Cambridgeshire and the eastern counties, that I feel some diffidence in including it here. Nevertheless, a caterpillar which I found on the trunk of an old thorn in Fenwick Wood in September 1895 seemed to be quite unmistakably this. Unfortunately it died. Perhaps it ought to be included within brackets, but the record may stand for what it is worth.

11. *A. TRIDENS*. Dark Dagger.—So closely resembles the next species, in the perfect state, that doubts as to identification are often bound to crop up; but scepticism may sometimes be carried too far?

We have no good Northumbrian records ; but Robert Renton was confident that it occurred at Threeburnford and Gordon Moss in 1877 and 1880 ; and Shaw thought that he got it at Eyemouth, though never, perhaps, absolutely certain of it.

In the *Entomologist* for 1903 Mr W. Renton refers to having bred it from larvæ taken near Kelso, which ought to put it upon a safer basis for Roxburghshire.

12. A. PSI. Common Dagger.—Generally abundant throughout the district, and recorded by every collector since Selby included it in his list in 1839. We get some very dark varieties.

13. A. MENYANTHIDIS. Light Knotgrass.—On most of our moors on both sides of the Border ; from Whitfield to Kielder, Carter Fell to Prestwick Car ; Tushielaw, Lauderdale, Galashiels, and Coldingham. Casual moths found sitting about amongst the heather used to be regarded as prizes, but the larvæ are now swept in quantity from *Calluna* and *Myrica Gale*. In 1892 I found one on a small sallow-bush near Fast Castle. Like some of the allied species, they may almost be termed general feeders.

14. A. RUMICIS. Knotgrass.—Generally common throughout the district, from the seashore up to 1800 feet or more on the hills, the higher ground seeming to produce the palest varieties. The always attractive larvæ may be found on a great variety of low plants, not even excluding thistles and sedges, and frequently on saughs (*Salix caprea*, etc.) and other scrubby trees, and even ferns.

[A. EUPHORBIE. Sweet-gale Moth (*A. Myricæ* of our old lists).—Selby included this in the *Fauna of Twizell*, but with a “ ? ” after it, and, apparently, he never afterwards did anything to remove the doubt. There are acres of ground covered with the food-plant, *Myrica Gale*, on the moors behind Twizell, and elsewhere in Northumberland, but I have never met with the moth, nor am I aware that anyone else has done so in the district. It has many Scottish habitats, but has not, apparently, been found anywhere in England.]

15. A. LIGUSTRI. The Coronet.—Has occurred over most of

the district, though seldom in any numbers, the larvæ being more often found than the perfect insect, usually on ash. The neighbourhood of Galashiels produces some good melanistic forms.

Localities are: for Northumberland, Wooler, Haggerston Mead, Morpeth, Sidwood, and Whitfield; for Berwickshire, Foulden, Ayton, Eyemouth, Preston, and Lauder; for Roxburghshire, Cherrytrees, Hawick, and near Galashiels.

16. *AGROTIS VALLIGERA*. Archer's Dart.—Abundant, and in fine variety, amongst the sandy links all along the Northumberland coast, where it may be gathered in any quantity from the flower-heads of ragwort during the day, or taken at sugar at night. Like many other grass-feeders, the larvæ prefer to feed in the dark, and spend the day buried in the sand.

From lack of congenial habitats it is comparatively rare in Berwickshire, but occurs about St Abb's, and again after crossing the East Lothian march; odd specimens occasionally turning up at Lamberton, Eyemouth, and once or twice as far inland as Ayton.

I find no records from Roxburghshire.

17. *A. SUFFUSA*. Dark Sword-grass.—Generally distributed, and locally not uncommon.

Localities: for Northumberland, Berwick, Scremerston, Haggerston Mead, Twizell (Selby), Embleton, and Morpeth (Robson); for Berwickshire, Eyemouth, Ayton, Preston, Fans, and Cockburnspath; for Roxburghshire, Hawick, Jedburgh, Kelso, and up to Galashiels.

18. *A. SEGETUM*. Turnip Moth.

19. *A. EXCLAMATIONIS*. Heart and Dart.—Both abundant all over the district.

20. *A. CORTICEA*. Heart and Club.—Not common, but has occurred over a pretty wide area.

Selby recorded it from Twizell, and nearer Berwick we used to get occasional specimens, mostly at sugar, at Ord, Scremerston, Cheswick, and Haggerston Mead. No records for southern half of the county.

On the other side of the Border, Shaw got one or two at Eyemouth; Buglass four, in various years, at Ayton; Renton took it at Gordon Moss in 1880, and Hardy at Oldcambus. William Evans got one from Barnsness Lighthouse, East Lothian, in September 1908.

[A. LUNIGERA. Crescent Dart.—Barrett gives “in the Edinburgh district” amongst his localities for this, no doubt following Buchanan White, but I cannot find any definite record for our area; except that amongst his old papers there is a pencil note of Selby—“near Bamburgh or Belford.” This had apparently been made subsequently to 1839, and would seem to refer to a capture. Admittedly it is a little vague, yet there does not seem to be any reason why this moth should not occur with us, and I do not like to pass it without this reference.]

21. A. CURSORIA. Coast Dart.—The sandy links of north Northumberland ought to be almost ideal for this species, but I never managed to take more than a single specimen (at sugar on Scremerston Links, 25th August 1888), nor do I know of any other records for the northern part of our district. On the south Northumberland coast Maling found it numerous in 1875 and later.* William Evans got a few from Tynefield, Haddington, in August 1894.†

22. A. NIGRICANS. Garden Dart.—Abundant at sugar in our garden at Berwick, as well as at East Ord, and common along the coast thence to Haggerston. Was included in Selby's *Fauna of Twizell*, and doubtless occurs elsewhere, though published records are scanty. Maling and others reported it as generally common on the southward coast of Northumberland.

Shaw used to take it fairly frequently at Eyemouth and Ayton, and regarded it as common in the neighbourhood of Galashiels. William Boyd had got it at Faldonside.

23. A. TRITICI. White-line Dart.—This most variable insect abounds all along the Northumbrian coast, some striking varieties

* *Nat. Hist. Trans. Northumberland, Durham, and Newcastle-upon-Tyne*, vol. iii, p. 381 and vol. v, p. 279.

† *Annals of Scot. Nat. Hist.*, April 1897.

both in size and colour being obtained, some of them no larger than *Miana literosa* and nearly as rosy in hue.

The Berwickshire coast is less suited to its habits and it becomes rarer there, but is found in profusion again in East Lothian.

Inland it is seldom noticed, but has been taken at Ayton, and was remarked upon by Selby as of not infrequent occurrence in his garden at Twizell.

24. *A. AQUILINA*. Streaked Dart.—So far as our present information goes, this must be regarded as a rare moth in the district, these given below being the only definite records known to me; but it much resembles some of the forms of *A. tritici*, and may have been overlooked. A close study of some of these allied “Darts” may be recommended to the attention of young entomologists.

In Northumberland, we took several specimens at Newham Bog, at different times between 1882 and 1899; but always only singly, and could never find it elsewhere. Probably Selby's records of *Charæas vitta* and *hortorum* at Twizell (which lies within a few miles of Newham) referred to this moth, these names being applied by Stephens to different varieties of this aberrant and at that time ill-defined species. In Berwickshire, Shaw took a specimen at Eyemouth in 1876, and two others later, all of which were submitted to Mr Carrington and Mr Doubleday and passed by them as correctly named, and with these my Newham examples entirely agreed.

Buchanan White included it as a “Tweed” species, and it has been recorded for several other districts in Scotland.

25. *A. OBELISCA*. Square-spot Dart.—Was taken by both Shaw and Buglass on the sea-banks at Eyemouth in 1875, in some numbers, and later discovered by Shaw to be fairly plentiful there, though apparently restricted to one or two spots on the cliffs. He enriched my collection with several specimens in 1888, naïvely remarking that he “could always get rid of them,” it being one of his best insects for exchanging purposes.

In August 1890 I took one at Kyloe, but never succeeded in finding it there again; our only Northumbrian station.

William Evans got it on Arthur's Seat in August 1893, and

had single specimens sent to him from the lighthouses at St Abb's Head and the Bass Rock in 1913 and 1914.

26. *A. AGATHINA*. Heath Rustic.—Apparently rare with us, though well distributed.

For Northumberland, I took single specimens on the Eglingham Moors in 1893 and at Kyloe in 1894, and others have been taken at Prestwick Car by Mr G. Nicholson in 1913,* and in Dipton Woods by Professor Heslop Harrison in 1925.† In July 1927 I took one at Emmethaugh, North Tyne, and during the last ten years have found it, in some numbers, on the fells about Alston, which, though in Cumberland, is only a mile or two from the Northumbrian boundary.

For Berwickshire, Shaw took one at sugar on the sea-banks at Eyemouth in 1876, but never saw another; while Anderson got one on Hoardweil Moor in 1874, and another at Drakemire.

For Roxburghshire, Mr W. Renton has reported the caterpillars as "common on all good moors," but difficult to rear.‡

27. *A. PORPHYREA*. True Lover's Knot.—Common on all our moors, and even on the sea-banks wherever heather grows: generally abundant.

28. *A. PRÆCOX*. Portland Moth.—A coastal insect, of which the only records for the district are one taken by Buglass in 1876, at sugar, in the Ayton Woods, Berwickshire; and two by myself in Northumberland, one on Cheswick Links, 27th August 1882, the other at rest on the sand on Ross Links, 16th August 1888.

29. *A. SAUCIA*. Pearly Underwing.—Not common, but more frequent in some seasons than in others. Usually taken at sugar and singly, but the larvæ have been found in some numbers in gardens, on lettuce, cabbages, and the like.

For Northumberland, Selby got it at Twizell; about Berwick

* *Nat. Hist. Trans. Northumberland, Durham, and Newcastle-upon-Tyne*, 1914.

† *Vasculum*, vol. xi, p. 128.

‡ *Entomologist*, 1903, vol. xxxvi, p. 134.

it was not infrequent on either side of Tweed, and I have likewise taken it at Cheswick, Haggerston, and Kyoel.

For Berwickshire, Buglass and Shaw both got it, fairly frequently, about Ayton and Eyemouth; and Hardy at Cockburnspath.

For Roxburghshire, Adam Elliot found it not rare in Teviotdale; Guthrie at Hawick; and William Boyd at Faldonside. About Galashiels Shaw found it scarce.

30. *A. PYROPHILA*. Dotted Rustic.—Seems to be distinctly rare in the district, our only records being—Northumberland, Selby at Twizell, and a solitary specimen which I took at Kyoel in 1898.

Berwickshire, Shaw got two at Eyemouth, the first in 1877; and Buglass three others about the same place, on the sea-banks, about the same period. Evans found it in the Forth area.

31. *A. RAVIDA*. Stout Dart.—William Maling recorded the capture of this rare and local species at Newbiggin-by-the-Sea in July 1874; * and the late Charles Robson took it at Killingworth. J. E. Robson mentions its having been met with by Miss Rossie at Kenton. These places are all in the south of Northumberland, and, despite the fact of its being often and eagerly looked for, we have no records for the northern part of the district, though it has been recorded from the Forth area.

32. *A. LUCERNEA*. Northern Rustic. — Local, but often abundant where it does occur. Its chief strongholds with us lie along the rocky Berwickshire coast, where its larvæ feed upon *Sedum acre* and other lowly plants. Thereon it ranges from Burnmouth to Bilsdean, and away beyond that to the Bass Rock and the Forth. Buglass once took one at Ayton.

In Northumberland, I first found it, on 1st August 1895, flying in numbers in the full sunshine round wood-sage at Kyoel, and a few years later found larvæ there on *Festuca ovina*, in April, the first moths appearing at the end of June.

In August 1924 I took one on the wing at the base of the cliff overlooking Crag Lough. It occasionally appears above Alston.

* *Nat. Hist. Trans. Northumberland, Durham, and Newcastle-upon-Tyne*, vol. v, p. 145.

33. *AXYLIA PUTRIS*. The Flame.—Rare, and as yet only recorded from Northumberland for our district, although Evans found it at Tynefield, East Lothian, as well as at other stations in the Edinburgh area.

It was taken by Bold at Newbiggin-by-the-Sea in 1871, and has also occurred in the neighbourhood of Newcastle (Robson). In 1898 I took it at Kyloe, and later at Haggerston Mead; single specimens only in each case.

34. *TRIPHÆNA FIMBRIA*. Broad-bordered Yellow Underwing.

35. *T. JANTHINA*. Lesser Broad-bordered Yellow Underwing.—Both well distributed throughout the district, though neither is ever plentiful enough to make it otherwise than attractive to collectors, especially to beginners. Each seems to have a predilection for turning up in strawberry-beds, in the perfect state; while, as larvæ, both are frequently found in gardens. I have more than once found the caterpillars of both when sugaring in June, apparently attracted by the sweets.

36. *T. ORBONA*. Common Yellow Underwing.

37. *T. PRONUBA*. Large Yellow Underwing.—Both very common in most places throughout the district. I have taken specimens of *orbona* so closely resembling *T. subsequa* as almost to defy separation; one I sent to Mr Richard South in 1887 puzzled even him!

38. *T. SUBSEQUA*. Lunar Yellow Underwing.—Local, and by no means common, although taken sparingly over a pretty wide area. About Berwick it can hardly be called rare, though seldom more than one was taken at a time.

Localities are: for Northumberland, Scremerston Sea House, Ancroft (rather plentifully), Allerdean Mill, Haggerston Mead, Goswick Links, Kyloe, Ross Links; Twizell (Selby); Morpeth and Newbiggin-by-the-Sea (Robson); and Houxty, North Tyne. For Berwickshire, Ayton (Buglass) and Eyemouth, single specimens only at each place.

In Roxburghshire, Adam Elliot seems to be the only person who has recorded it, but he took a fair series in the neighbourhood of Jedburgh and specially mentioned some very dark varieties. About Galashiels Shaw considered it distinctly rare.

Most of our specimens used to be found during the day-time on the flower-heads of ragwort ; one or two at sugar ; but at Kyoel, on 1st August 1895, I found the moths rather plentifully hiding in the tufts of grass (chiefly *Festuca ovina*) growing upon the face of the basalt cliff ; no other noctuid being seen in these tufts at that time.

39. NOCTUA GLAREOSA. Autumnal Rustic.—Well distributed, and fairly common in some localities. For Northumberland, we have Twizell ; not rare round Berwick ; Langleyford, Morpeth, Allendale, and Houxty.

For Berwickshire, Eyemouth and Lamberton sea-banks (sometimes coming rather freely to sugar), and Foulden Hag.

For Roxburghshire, Jedburgh, Yetholm (Cherrytrees), Hawick (not uncommon at sugar, and bred from larvæ collected in spring—Guthrie), and W. Renton recording it as “ frequent on borders of moors.”

40. N. AUGUR. Double Dart.

41. N. PLECTA. Flame Shoulder.

42. N. C-NIGRUM. Setaceous Hebrew Character.

43. N. BAJA. Dotted Clay.

44. N. XANTHOGRAPHA. Square-spot Rustic.—All generally common throughout the district and calling for no special remark.

45. N. DEPUNCTA. Plain Clay.—I have not met with this species in Northumberland except at Houxty, where it does not seem to be at all common ; our only other locality being Ninebanks, West Allendale, where Professor Heslop Harrison has found it sparingly.

At Galashiels Shaw took it for the first time in 1899, but it has since been found with some frequency in that neighbourhood. We have no other records.

46. N. TRIANGULUM. Double-spotted Square-Spot.—Fairly distributed over the district, but seems seldom to have been found in any plenty.

Robson records that Findlay found it occasionally in the Morpeth neighbourhood, and that it had been taken near New-

castle on both sides of the Tyne; Professor Heslop Harrison tells me that the larvæ swarmed at some of these stations. Elsewhere in Northumberland I have only met with it on Ross Links, where it is sometimes not uncommon, and at Fawdon in the parish of Ingram. On the sea-banks north of Berwick I took my first specimen, at sugar, on 7th July 1887. Mr Watson took single specimens at Sidwood in 1906 and 1908.

In Berwickshire, Shaw took a few from time to time at Eyemouth, and on the banks of Ale Water. In recording one from Duns Castle woods in 1873, Kelly spoke of it as "very rare."

Adam Elliot got it in the vicinity of Jedburgh, and Mr Grant Guthrie not commonly about Hawick, the only published records for Roxburghshire known to me. Twenty years ago Shaw spoke of it as common about Galashiels.

47. *N. RHOMBOIDEA*. Square-spotted Clay.—I took a specimen of this at Swinhoe, near Chathill Station, in August 1889, which apparently remains our only Northumbrian record.

William Shaw recorded one from Ayton in 1874, the only occurrence for Berwickshire; and there are no others for the Borders known to me. Buchanan White gives "Tweed" and "Forth" areas, but without specific information.

48. *N. BRUNNEA*. Purple Clay.—Well distributed and generally common in the district.

For Northumberland, we have Twizell, Langleyford (some particularly richly coloured specimens), Allerdean, Ancroft, Berwick, etc. Morpeth, Newcastle, Hexham; and Houxty where it is common. For Berwickshire, records are Eyemouth (abundant), Ayton, and in the neighbourhood of Duns, etc.

And in Roxburghshire it has been noted as common from the Jedburgh, Hawick, and Galashiels districts.

49. *N. DAHLII*. Barred Chestnut.—Seems to be generally scarce in the district, although recorded from a fairly wide area.

For Northumberland, Finlay found the imago occasionally in Coal Law Wood, Morpeth (Robson); while I took one at Kyloe in August 1898, another at Berwick the following year, and two in Fenwick Wood.

For Berwickshire, Buglass got eight at Ayton in 1876;

Anderson bred one from a pupa collected at Grantshouse in 1875; Kelly noted it as common in the natural oak woods at Abbey St Bathans, and Aiky Wood, Lauderdale, about the same period; Anderson "rather common" amongst the low oaks at Hoardweil on the Whitadder in the same year; and Shaw got one or two at sugar at Eyemouth.

The last-named observer, always to be trusted, called it rare in the neighbourhood of Galashiels; and it has been recorded from the Hawick district of Roxburghshire by Mr W. Renton.

50. N. FESTIVA. Ingrailed Clay.—N. CONFLUA. Lesser Ingrailed.—This extremely variable moth, both as to size and colour as well as markings, is abundant in most parts of the district, from the seashore to high up upon the hills, and in great—indeed perplexing—variety. By the older authorities it was divided into the two species named above, but now the consensus of opinion unites them as intergrading and indistinguishable one from the other, and by adopting that view I am glad to escape from any dissertation upon the dividing line between a species and a variety. Suffice it to say that it would be possible to pick out from amongst our captures examples agreeing more or less closely with nearly every one of the twenty figures given by Barrett, and still have a considerable number of almost equally striking forms.

I used often to combine a little sugaring with shooting, at Langleyford and such places, about the 12th of August, but results in the former effort were oft nullified by the swarms of *festiva* (or *conflua*) that insisted upon covering the patches to the exclusion of almost everything else.

Comes freely to light as a rule.

51. N. RUBI. Small Square-spot.—Widely distributed, though seldom noticed in more than moderate numbers.

I took one at Kyloe in 1898, and afterwards found it to be not uncommon about Haggerston Mead; while a moth casually picked up on Heatherington Moss, North Tynedale, in 1918 proved to be this. Finlay used to get it in Coal Law Wood, Morpeth, but never commonly (Robson); and Mr Watson took one at Sidwood in 1915, and two more in 1921; but these are the only definite records for Northumberland.

In Berwickshire, Kelly recorded one from Addinstone, Lauderdale, in 1874; Shaw three in the following year from Lamberton Moor, where, later, we found it to be not rare. Renton got it not infrequently on Gordon Moss from 1880 onwards, and it has likewise been taken at Ayton and Eyemouth.

For Roxburghshire, Adam Elliot included it in his list for Teviotdale. In the Galashiels neighbourhood Shaw found it scarce.

52. *N. UMBROSA*. Six-striped Rustic.—More frequent than the last. About Berwick it is not uncommon, Scremerston, Longridge, etc.; other Northumbrian localities being Twizell, Chathill, Houxty, Sidwood, Meldon Park, and Newbiggin-by-the-Sea, in most of them fairly plentifully; and the same description may be applied to its Berwickshire stations at Eyemouth, Ayton, Preston, Duns, and Lauderdale; as well as to Yetholm, Jedburgh, Hawick, and doubtless other places in Roxburghshire.

It comes freely to sugar, and may frequently be found on the heads of rushes, as well as on ragwort and other flowers.

53. *N. NEGLECTA*. Grey Rustic.—Not common, and usually only taken singly.

It is in the Twizell list. I took it at Eglingham in 1893; at Kyloe in 1898; and near Houxty in 1916. Coal Law Wood, near Morpeth, where Finlay never found it more than scarce, is the only other recorded locality for Northumberland. One came in at my window, to light, at Alston in August 1926.

Across the Border, one was got near Duns in 1888; and Shaw got a few at sugar about Galashiels some ten years later. Mr W. Renton has reported it from Ruberslaw.

54. *EUROIS HERBIDA*. Green Arches.—Well distributed over the district, moderately common, but not often very numerous, though Buglass once took over a hundred at sugar in one night at Ayton!

It was in the Twizell list, and I used to take one or two in most years about Berwick, Spittal banks, Allerdean, etc. Elsewhere in Northumberland it has generally been found if looked for; Langleyford, Eglingham, Alnwick, Morpeth, Houxty, Sidwood, and Stocksfield.

As Berwickshire localities, Eyemouth, Fans, and Gordon Moss, Foulden, Preston, Duns, and Paxton may be added ; and for Roxburghshire, Yetholm, Hawick, and Jedburgh.

55. *E. OCCULTA*. Great Brocade.—Has been taken over a wide area, but generally only singly and at long or uncertain intervals.

My first capture was made on 2nd September 1881 on the sand-ridge at Goswick, where (at low tide, a full mile from the nearest dry land) I noticed something flutter on a mussel-scaup and picked up a fine fresh *occulta* ! It travelled back to Berwick on my back, in a paper box improvised out of an envelope, in the game-bag, and, though alive when we got home, is still an excellent cabinet specimen. It was a curious place to find a rare moth, and I did not meet with another until August 1891, when one was found on a wall in Castle Terrace, Berwick.

It is included in the Twizell list, and one was found at rest on an elm trunk at Ancroft in 1890. Robson mentions one caught at Jesmond, which completes the published records for Northumberland.

In Berwickshire, Shaw took one at Eyemouth in 1875, Buglass two at sugar at Ayton the same year ; while I found one at rest on the trunk of an old oak in Foulden Hag in August 1891.

For Roxburghshire, Elliot, remarking on its uncertain appearance in the Jedburgh district, mentions that it was moderately common, both in moorland and lower stations, in July and August 1880. W. Renton records a somewhat similar experience with regard to Minto and Cavers woods in 1903 ; Mr Grant Guthrie got one at sugar near Hawick in 1881 ; and one has been occasionally taken in the Galashiels district.

56. *E. SATURA*. Beautiful Brocade.—A very rare moth in Britain, with which, personally, I can claim no acquaintance. Specially fine examples of *Adusta*, which is generally a somewhat smaller insect, may sometimes have been mistaken for it.

Selby included it in his Twizell list, but put a “ ? ” to it. John Hancock took a specimen at rest in Brandling Place, Newcastle, in April 1845, which Mr V. R. Perkins recorded in the *Entomologist* (vol. x, p. 99), and which Robson ascertained was still in Mr Perkins’ collection in 1899. Those who may be

sceptical as to the authenticity of this specimen may usefully read what Robson has said about it. With his remarks I entirely agree.

Shaw believed that it had occurred at Galashiels (see his contribution to the Club's *History*, vol. xix, p. 189), and he was always a most careful and critical observer.

57. *E. ADUSTA*. Dark Brocade.—Widely distributed over the district and, locally, not uncommon. Some very beautiful dark forms occur about Berwick. It comes freely to sugar, and I have repeatedly bred it from pupæ found under moss; a shining, reddish pupa. It also comes to light; William Evans had it sent to him from various lighthouses, including that on St Abb's Head.

Localities are numerous: Twizell, Spittal banks, Cheswick Links, Allerdean Mill, Langleyford (pretty high out on Cheviot), Houxy, Sidwood, Stocksfield, Newcastle, and Morpeth may be mentioned for Northumberland; Sea-banks north of Berwick, Eyemouth, Ayton, Foulden, about Duns, and Gordon Moss for Berwickshire; and Jedburgh, Hawick, and Yetholm for Roxburghshire. Round Galashiels Shaw considered it scarce.

58. *CHARÆAS GRAMINIS*. The Antler.—Common throughout the district, from the seaside links to the tops of our highest hills. Very variable both in size and markings, some very dark forms being rather frequent near the sea.

Periodically it increases to such an extent on our uplands that, over large areas, the grass is almost entirely eaten up by the larvæ, and stock have to be removed, at considerable expense to farmers, to other pasturage, the havoc wrought sometimes approximating that caused by a "Vole Plague."

A graphic account of one such visitation, from the facile pen of James Hardy, will be found in the Club's *History*, vol. xi, p. 195. An even greater "plague" occurred in the summer of 1917, extending over a considerable part of England and filling the newspapers with sensational "matter" for several weeks. I had very full opportunities of witnessing the advance of the armies of caterpillars, on our southern boundary, on that occasion, and can truthfully say that to exaggerate their numbers would not have been easy. Ditches and even considerable hill-

burns were sometimes blocked with their dead bodies, wreaths of them being formed by floodlets at the foot of many of the braes, and roads in some places rendered almost dangerously slippery to wheeled traffic ! Rooks, starlings, plovers, and other birds became quickly surfeited with the feast, as did also ducks, geese, and other poultry that were driven by their owners against the advancing foe. Then (as oft haps ?), when farmers were talking of ruin and despair, Nature came, unseen, to the rescue. The caterpillars had become full-fed and vanished as though by magic ; and, curiously enough (though the man on the fell hardly noticed that), the moths in autumn were scarcely more numerous than usual. The required damage having been accomplished, the scales swung even again. An army of ichneumons had prevailed where birds and human beings had failed. They had done that which it was their duty to do, and in the years that followed Antlers were no more than ordinarily abundant.

Barrett considered that the ordinary day-flight of males did not extend beyond 11.30 a.m., and that females did not commonly fly during the day at all, or if they did that their period of activity began after that of the males had ceased. But, whatever may be the case in southern England, I have noticed no such distinction on the Borders, where both sexes may be seen on the wing together in hot sunshine, and have even been observed pairing in the daytime. Barrett also remarks that the species does not come to sugar in the south. It does so with us freely enough upon occasions, though when heather and other blooms are particularly attractive fewer insects of any species are apt to visit our artificial baits.

59. *HELIOPHOBUS POPULARIS*. Feathered Gothic.—Seems to be rather local and nowhere very common with us, but the fact of its not being attracted to sweets, and being chiefly only collected at lights, may have something to do with its supposed scarcity.

I first got it in 1882, but later obtained several others at Berwick, all at lighted windows. In 1898 one or two were taken in similar manner at Haggerston Mead. Other Northumbrian stations are Twizell, Morpeth, and the neighbourhood of Newcastle as mentioned by Robson.

In Berwickshire, it was found, sparingly, by Shaw at Eyemouth, and by Buglass at Ayton.

For Roxburghshire I find no record except that of Mr W. Renton, who states that he took one at Deanbrae in August 1899. About Galashiels Shaw considered it as "scarce," in 1904.

60. *H. CESPITIS*. Hedge Rustic.—Of this rare and local moth I took two specimens at light in our garden in Berwick in 1883, one of which I gave to the Museum, and in the same year a third on Cheswick Links. No other collector seems to have met with it in our immediate district,* though Mr Haggart got one off a street lamp in Galashiels in 1902.

At long intervals one or two have been taken on Tyneside, but none I think on the Northumbrian bank of the river.

[*PACHETRA LEUCOPHÆA*. Feathered Ear Moth.—At an exhibition of the local Natural History Society at Galashiels, on 19th March 1896, I saw specimens of this moth in more than one collection, which had all been taken off street lamps in the town within recent years. I do not, therefore, like to exclude all reference to the species here, although, so far as at present known, it is confined to the counties of Kent and Surrey in this country, and the risk of accidental importation to Galashiels cannot be disregarded. It must, therefore, at least for the present, only appear within brackets.]

61. *APLECTA NEBULOSA*. Grey Arches.—Must be regarded as very rare in our district, unless it has been confused with allied species and overlooked.

Selby included it in his *Fauna of Twizell*, but appears to have got no more than a single specimen subsequently to its publication; and the only other Northumbrian stations known to me are Sidwood, where Mr W. G. Watson reported the capture of one on 26th June 1922, and Kenton, near Newcastle, as mentioned by Robson. I once (on 6th August 1886) felt confident that I saw one on a sugar-patch at Allerdean Mill, but failed to bottle it, and could never find another; and the incident would not have been worth recalling but for the encouragement of

* Shaw's record in the Club's *History* (vol. vii, p. 482) was made in error, as he himself pointed out in 1888.

succeeding workers. Professor Heslop Harrison tells me that it "was formerly (1906) common in the Derwent valley as larvæ," that stream being the march between Northumberland and Durham.

In his admirable paper on Lepidoptera in Roxburghshire, in 1882,* Adam Elliot included this species, but without comment; and it appears in Mr Grant Guthrie's list for the Hawick district, in 1895, as "One at sugar, first week in July, Whitelaw Banks." About that period, or a few years earlier, a specimen was reported to have been taken at Duns, but inquiries failed to elicit any information about it, and there is no good record of it for Berwickshire.

62. *HADENA THALASSINA*. Pale-shouldered Brocade.—Well distributed, if somewhat local, and not rare. We used to take it pretty freely about Berwick, chiefly at sugar, though a considerable number were reared from time to time from pupæ collected under moss, loose bark, and similar places. Other localities for Northumberland are Twizell, Scremerston, Allerdale, Kyloe Wood, Houxty, Sidwood, Stocksfield, Morpeth, Sweethope, and near Newcastle.

In Berwickshire, Shaw took it commonly on sugar at Ayton and Eyemouth, and it is got about Duns and other places.

In Roxburghshire, it may perhaps not be quite so common, but was included in Elliot's list for the Jedburgh district, and was got by Mr Grant Guthrie round about Hawick, and by W. B. Boyd at Cherrytrees.

63. *H. SUASA*. Dog's-tooth.—Was included in the Twizell list, and Robson records it from Fawdon, near Newcastle, but these are our only Northumbrian records. On the Scotch side of the Border it has been reported from Lauderdale.

[*N.B.*—Robson states that the favourite food of the larvæ on the Durham salt marshes is *Statice limonium*, and it may or may not be relevant to mention that I have more than once found a noctuid caterpillar on *Statice* on St Cuthbert's Island, at the south-west corner of Holy Island. They were small and I never attempted to rear them, food not being easily attainable, but it might be worth while for someone else to do so.]

* *Hist. B.N.C.*, vol. x, p. 149.

64. H. PISI. Broom Moth.—Has been taken in all parts of the district and may be regarded as generally common, though by some collectors it is considered rare.

In some years the very attractive larvæ become excessively abundant, and this amongst the hills inland as well as upon the coast.

65. H. OLERACEA. Bright-line Brown-eye.—Very common everywhere, the most abundant of the genus with us.

66. H. GENISTÆ. Light Brocade.—Was included in the Twizell list, which remains our only definite record. A note by Selby of its capture, in 1837, will be found in the Club's *History*, vol. i, p. 160.

I saw a specimen, in 1885, in the collection of Mr John Bruce of Adderstone (which adjoins Twizell), which he thought he had taken there in the previous year: and I believe we took one at Berwick a year or two later, but unfortunately it got astray before its identity had been placed beyond possible doubt.

67. H. GLAUCA. Glaucous Shears.—Apparently rare with us, or very local. Our earliest, and only, Berwickshire record is by Andrew Kelly, who took a specimen amongst nettles at Addinstone, near Lauder, in 1873, its identification being later thoroughly confirmed.

There is no definite record for Roxburghshire; but since about 1896 (in which year I saw examples in several of the local collections) it has been taken in more than one locality round Galashiels, which, though in Selkirk, is only divided by the Tweed from the former county; and, it is to be noted, only a few miles, as moths fly, from Lauderdale.

For Northumberland, I took it at Kylvie in 1900, and shortly afterwards at Haggerston Mead. In Mr W. G. Watson's collection I saw a fair series in 1920, all recently taken at Sidwood, North Tynedale, where he afterwards found it to be not very uncommon; and Mr G. Nicholson has taken it at Bellingham. I have of recent years observed it about Alston.

68. H. DENTINA. The Shears.—Not rare, though perhaps somewhat local, and has seldom been found in any great plenty anywhere in the district.

For Northumberland, it was found by Finlay to be common in certain seasons in the Meldon (Morpeth) district, and has been met with at Jesmond, near Newcastle (Robson). We took it on Cheswick Links in 1882, and Mr Wallace got one at Ancroft in 1889. In 1893 I found it not uncommon at Alwinton, Coquetdale; and in 1920 Mr W. G. Watson had a good series at Sidwood, where he looked upon it as rather common.

For Berwickshire, it was first recorded by Kelly from Lauderdale in 1873; Shaw got a few at Eyemouth, Buglass doing the like at Ayton. Renton took it at Gordon Moss in 1880; and William Evans had it from the lighthouse on St Abb's Head in 1913.

In Roxburghshire, it was not considered rare by Adam Elliot, nor about Hawick by Mr Grant Guthrie. Round Galashiels it has been frequently taken, but seems not to be common: it yields a pretty variety there.

When flying in the sunshine this moth has a peculiarly attractive flight, soft and silky, as it flits from flower to flower of such plants as *Lotus corniculatus*.

69. H. CHENOPODII. The Nutmeg.—Rare. It was included in Selby's list for Twizell, and I had a specimen from Chillingham in 1902, but these are our only Northumbrian records.

For Berwickshire, there is but a single record, and that of only a single specimen, taken by Andrew Kelly in Lauderdale many years ago.

For Roxburghshire, it was included, without comment, in Adam Elliot's list in 1882, but my recollection is that he had not taken it more than once or twice.

70. MAMESTRA ALBICOLON. White Colon.—Another rare moth in our district, for which we have no Northumbrian records except from the extreme south. Robson mentions its occurrence about the mouth of the Tyne, and in 1874 William Maling noted that it was "very scarce at Newbiggin-by-the-Sea this season." In these latter days there is not so much inviting ground for lepidoptera in that region, but Charles Robson got it at Killingworth, and Mr H. Sticks takes it at Seaton Sluice.

In Berwickshire, Andrew Kelly took a single specimen in Lauderdale many years ago which was, I believe, the justification

for its inclusion in the " Tweed area " by Buchanan White, as quoted by Barrett.

The only Roxburghshire record was made in 1895 by Mr Grant Guthrie, into whose half-open hand a moth flew one day in the High Street of Hawick, but that curious incident occurred in or before 1874.

71. *M. BRASSICÆ*. Cabbage-moth.—Too common everywhere to require any comment.

It is an insect that as a rule varies but little save in the depth of colour, but in Berwick a form in which the white spot (reniform stigma) was almost or entirely absent used to be rather common. Buglass took only one such variety at Ayton: on the links at Scremerston and Cheswick it was by no means infrequent.

72. *M. PERSICARIÆ*. The Dot.—Rare. Our only record for the Scotch side of the Border known to me is that Mr Grant Guthrie used to take it about Hawick.

Robson refers to its occurrence near Newcastle, and I had one sent to me from Chillingham in 1894.

At Alston I occasionally see it, and have bred it more than once from its very beautiful caterpillar casually picked up in the garden.

73. *HECATERA SERENA*. Broad-barred White.—Generally regarded as rather a rare insect throughout the country, this pretty little moth is not uncommon about Berwick, and has been found over a large portion of our district, though not often in more than small numbers.

For Northumberland, Selby got it at Twizell in 1836.* We first took it in the garden at Berwick in 1883, and afterwards found it, sparingly, every year on both banks of the Tweed; also at Cheswick (commonish on or near the links), Scremerston Sea House, and Haggerston Mead. In 1919 one appeared in our garden at Alston.

For Berwickshire, Shaw first got it at Ayton in 1874, and later was accustomed to take one or two there every year, as well as on the sea-banks at Eyemouth. Adam Anderson took it for the first time at Broomhouse on the Whitadder, also in 1874,

* *Hist. B.N.C.*, vol. i, p. 160.

but subsequently found one or two thereabouts in most years, and had a nice series when I looked over his collection in 1895. By 1879 Robert Renton was getting it occasionally about Fans.

For Roxburghshire, Mr Grant Guthrie recorded it from Trow Mill and Collier's Plantation, Hawick, in 1895; Adam Elliot having already taken two or three specimens in the Jedburgh neighbourhood.

The majority of our specimens have been taken at Valerian flowers.

74. *DIANTHÆCIA CARPOPHAGA*. Tawny Shears. — Pretty common on the coast, but also occurs inland occasionally, some of our specimens being very dark, approaching what used to be known as *D. capsophila*, as to the specific distinctness of which opinions are divided, but which Barrett includes as only a variety of the present species. Without debating that point I follow him here. Although about Berwick we never get any specimens that could be passed as typical *capsophila*, some of them closely approach it, and Robson includes this as a distinct species in his *Catalogue*, with the remark that Finlay took a few at Meldon Park (Morpeth). "I have seen the specimens and they are unquestionably what is called *Capsophila*. I believe this is the only place in the East of England where it has been taken" (*Nat. Hist. Trans. Northumberland, Durham, and Newcastle-upon-Tyne*, vol. xii, p. 134).

Carpophaga occurs pretty freely along the coast at Berwick, Scremerston, Cheswick Links, etc., and was taken by Maling at Newbiggin-by-the-Sea and elsewhere on the southern Northumbrian strand. I found it at Alston in 1914.

On the Berwickshire coast it is equally plentiful, and has also occurred at Broomhouse on the Whitadder.

Adam Elliot found it, not rarely, in Teviotdale, Roxburghshire, whence a specimen is figured by Barrett (pl. clxii, fig. 1e), and particularly described on p. 231, vol. iv of his work.

With us this species is most easily collected in the larval stage, in the seed-capsules of *Silene maritima* and kindred plants. When approaching full growth the larva descends to hide in the ground during the day, feeding chiefly at night, but it is wonderful how large a caterpillar can manage to curl itself into a small capsule so as to remain hidden there.

75. *D. CUCUBALI*. The Campion.—Fairly common, but not plentiful; larvæ with the last in the capsules of *Silene inflata*, *Lychnis dioica*, etc.

Round Berwick it is not rare, Scremerston, Cheswick, Haggerton Mead, Spindlestone, etc., other localities for Northumberland being Meldon Park, Morpeth, Newbiggin-by-the-Sea, and Tyne-mouth. I have also seen it at Alston.

In Berwickshire, it occurs regularly on the sea-banks at Eyemouth and elsewhere; sporadically on the Whitadder banks, from Edrington at least as far up as Preston and Broomhouse; and was taken by Renton at Cleekhimin and Chapel-on-Leader, Lauderdale.

In Roxburghshire its status appears to be much the same. About Galashiels Shaw considered it scarce.

76. *D. CAPSINCOLA*. The *Lychnis*.—The most common and best distributed of the genus in our district, the caterpillars being easily found in the seed-pods of *lychnis* and *campions* in most places. Localities may therefore be dispensed with.

77. *D. CONSPERSA*. Marbled Coronet.—More local than the last, but sometimes quite as numerous in coastwise stations.

It was included in the Twizell list, and we took it in plenty about Berwick, Spittal banks, Cheswick, and Bamburgh. In July 1895 I found one at rest on a tree-trunk at Rock Moor-House. Mr J. W. Thompson takes it at Shiremoor.

Along the Berwickshire coast it is nowhere absent and often numerous from Lamberton to Cockburnspath, and has been obtained from time to time at St Abb's Head and other light-houses.

In Roxburghshire it is on record from Hawick, and I have taken it near Kelso.

78. *APOROPHYLA LUTULENTA*. Deep-brown Dart.—Appears to be rare in the district, but has been taken over a considerable area, generally at sugar and only singly. The very dark variety, *luneburgensis*, has occurred twice at Berwick and three times at Eyemouth.

For Northumberland, it is in the Twizell list, and Robson states that Finlay found it plentifully at heather blossom at

Coal Law Wood in the Morpeth district. It first appeared on our sugar-patches at Berwick in 1884, and during the next twenty years some half-dozen specimens were taken there. Others were got in Scremerston Woods in 1884, Philadelphia (on the links at Scremerston) in 1889, Kylee in 1885 and 1895, Ancroft in 1890, and Haggerston Mead in 1898. One occurred casually at Alston in 1915.

In Berwickshire, Shaw and Buglass got four at Eyemouth and Ayton in 1876, but no more than single individuals have been seen there since—probably from lack of observers ?. Renton got one at Fans in 1877.

In Roxburghshire, Elliot found it in the Jedburgh district, "one very beautiful variety which Mr Barrett . . . has hitherto only seen from Aberdeenshire." About Hawick, Mr Grant Guthrie recorded it in 1895 as "not common," and W. Renton has since reported it from Kelso.

79. *A. NIGRA*. Black Rustic.—Much rarer than the last, and not recorded for Berwickshire ; it seems almost to eschew our eastern coast.

Selby got it at Twizell, and I took one at Langleyford in 1888, and another by the side of Gilderdale Burn, where it forms the march between Northumberland and Cumberland, in September 1916. In August 1917, Mr Guy Barnett took two at sugar in the garden at Blindburn, North Tyne, and brought them across the river for my inspection at Houxty, one afterwards going to the Royal Scottish Museum.

In Roxburghshire, Mr W. Renton has recorded it as "more common than the last, widely distributed," but we have no other knowledge of it in that county except that I took a single specimen at Hoselaw Loch in 1888.

About Galashiels, Shaw regarded it as "scarce" in 1904, although in one season, some five or six years previously, Mr Haggart had taken over fifty specimens.

80. *DASYPOLIA TEMPLI*. Brindled Ochre.—Generally distributed over the district, and probably by no means so scarce as the limited number of records might seem to suggest. It cannot be called rare, yet it is generally looked upon as a prize by collectors, and is seldom taken except singly, the chief reason

being that it is not carefully or specially looked for. The moth emerges late in autumn, and passes the winter hiding beneath loose stones, and in the shifting of these or the removal of a heap of rubbish, specimens have frequently been casually taken. I have more than once so found one when working upon the rockery; and, as such individuals not infrequently prove to be fertilized females, the obtaining of eggs, and subsequent larvæ and moths, is not a difficult matter for those willing to undertake the trouble of rearing them. It is males that are most commonly taken at sugar or light in the autumn, and examples have repeatedly been recorded from lighthouses, as, for example, from St Abb's Head, Barnsness, and the Bass Rock, by William Evans. The caterpillars feed singly in the stems and tap-root of the Cow-Parsnip (*Heracleum sphondylium*), and are not difficult to find therein by the painstaking entomologist. I have beaten the moth, in spring, from the tangled roots of bents (*Ammophila*) overhanging the miniature sand-pits on the links at Cheswick and Holy Island, a hint that may not be thrown away on some young collector.

Other localities that may be mentioned are—For Northumberland: Allerdean, Felkington, Wooler, Knaresdale, near Alston; Meldon Park, Morpeth; and Jesmond and Kenton in the vicinity of Newcastle.

For Berwickshire: Eyemouth, Ayton, Fans near Earlston, and Lauder.

For Roxburghshire: Hawick, Kelso; and around Galashiels.

[*POLIA FLAVICINCTA*. Large *Ranunculus*.—Robert Renton thought he had got it at Fans in 1883, but the specimen was lost, and was never duplicated. We have no other records, and the species cannot be included here except within brackets.]

81. *POLIA CHI*. Grey Chi.—Common throughout the district, the variety *olivacea* being in some places, or in certain seasons, nearly as frequently met with as the type. There are also intermediate and slaty-grey forms.

82. *DRYOBOTA PROTEA*. Brindled Green.—Well distributed; most common, apparently, on the Scotch side of the Border.

Localities are—For Northumberland: Kylvie, Glanton, Houxty, and Alnmouth.

For Berwickshire: Eyemouth, Ayton, Preston, Duns, and Abbey St. Bathans.

For Roxburghshire, where it is generally more plentiful than elsewhere, Jedburgh, Hawick, Kelso; and about Galashiels.

83. *CLEOCERIS VIMINALIS*. Minor Shoulder-knot. — Well distributed, and fairly common in some places, dark forms predominating as a rule over the light, and intermediates occurring. I have sometimes seen sallow bushes almost denuded of their foliage by the larvæ, and have also found the latter on different willows, as well as, occasionally, upon birch. It has a habit of turning its head sideways, especially when disturbed, forming a sort of half-loop, as some of the *Cymatophora* larvæ do, thus raising false hopes of something rarer!

In Northumberland, I have found it plentifully on the moors at Kyle, Holburn, and elsewhere, as well as on the banks of South Tyne at Lintley and Knaresdale. Other localities for the county being near Berwick, Newham Bog, Heatherington Moss, Broomlee Lough, Twizell (Selby), and Coal Law Wood, near Morpeth.

For Berwickshire, I know of no captures except Renton's about Gordon Moss, but it is sure to occur in other suitable places.

In Roxburghshire, it is recorded from the neighbourhoods of Jedburgh, Hawick, Kelso, and Yetholm (Cherrytrees).

84. *CHARIPTERA APRILINA*. Marvel-du-Jour. — Well distributed over the district and fairly plentiful in suitable places. Oak-trees are not numerous round Berwick, yet we have found the moth at rest on walls about the town, and sometimes taken it at sugar.

85. *MISELIA OXYACANTHÆ*. Green Brindled Crescent. — Generally common throughout the district. The dark variety, *capucina*, as figured by Barrett, occasionally occurs, but it is some of the palest insects that are the most strikingly beautiful.

86. *LUPERINA TESTACEA*. Flounced Rustic. — Common at Berwick and in the surrounding country on both sides of the Tweed, as it is in most places in Northumberland. On the Scotch side

it is common enough on the coast, but appears to be looked upon as somewhat scarcer inland. "Local" in Roxburghshire, "scarce" about Galashiels. It varies much both in size and colour, comes very freely to light, and has been taken at several of our lighthouses.

87. CERIGO CYTHEREA. Straw Underwing.—Well distributed along the coast, but seems to be seldom numerous. Records from more inland stations are scanty. It comes freely to sugar and to light.

About Berwick it was not uncommon and in some seasons even plentiful, and the same may be said of Scremerston Sea House, Cheswick Links, Ross Links, and Newton-by-the-Sea. Selby got it at Twizell, while other Northumbrian localities are Newbiggin-by-the-Sea and Earsdon.

In Berwickshire, it has occurred at Ayton, Eyemouth, and Oldcambus, but never more than sparingly.

In Roxburghshire, Mr Grant Guthrie considered it rare about Hawick, and Mr W. Renton never gets more than a few in any one year.

88. HAMA ABJECTA. Crescent Striped.—A coastwise insect, generally confined to salt-marshes and their neighbourhood in other parts of the country. Robson found it regularly on some parts of the Durham coast. A single specimen which I picked off the head of a Ragwort on Goswick Links in 1904 is the only Northumbrian occurrence known to me.

Berwickshire can also boast a single record—three or four specimens having been taken in the Policy at Addinstone, Lauderdale, by Andrew Kelly, and submitted for confirmation to Dr Buchanan White.

89. H. ANCEPS. Large Nutmeg.—Apparently very local, and perhaps rare with us, as it has only been taken in very moderate numbers; generally at sugar.

About Berwick we first took it in 1887, and generally saw one or two each year subsequently, never more. Selby got it at Twizell, Maling at Newbiggin-by-the-Sea. We got one or two at Scremerston, and at Haggerston Mead, but there are no other records for Northumberland.

In Berwickshire, Shaw and Buglass each took it at intervals at Eyemouth and Ayton, and Kelly got it at Addinstone, Lauder, in 1874, but that completes our knowledge of it on the Borders.

90. *H. FURVA*. The Confused.—A local species which used to be considered rare about Berwick until I discovered the larvæ feeding at the roots of grasses growing upon the town walls, facing east, in May and June 1888. Subsequently they were found commonly there, and many of the newly emerged moths, a little later in the season, in the same situation. I used also to take it freely at sugar at Scremerston Sea House, on the links a little further to the south, and on the top of the Bible Knowe at Langleyford under Cheviot. The only other Northumbrian localities known to me are Sidwood, where Mr Watson has taken a fair series during the last ten years, and on the basalt cliff west of Crag Lough, where I saw the moth flying in some numbers on 12th August 1924. It is not rare at Alston.

In Berwickshire, Shaw found it rather commonly about the top of the sea-cliffs east of Eyemouth; and it likewise occurs at St Abb's Head and north-westwards to the Bass Rock.

In Roxburghshire, Adam Elliot occasionally met with it in the Jedburgh district, in 1882; while W. Renton afterwards reported it to be not uncommon in that county. In the Gala-shiels neighbourhood it has been taken, chiefly about the hill-tops, but is considered rather rare.

91. *XYLOPHASIA LITHOXYLEA*. Light Arches.—Generally distributed and fairly common, though seldom abundant.

92. *X. SUBLUSTRIS*. Reddish Light Arches.—This was included in the *Fauna of Twizell*, but has so seldom been found anywhere so far north that the correct identification of the specimen has been doubted by some subsequent writers. The specimen is no longer available for examination; but, preferring Selby's accuracy of determination to that of some of his critics, I allow the record to stand for what it may be thought worth. Some day confirmation may be forthcoming, although it is right to add that up to the present no second specimen has rewarded the eyes of eager searchers in the same locality.

It is a rare insect in Yorkshire, and was unknown to Barrett to occur anywhere further to the north, but has since then been found by my friend Mr H. Britten, not uncommonly, at Great Salkeld, on the Cumbrian side of the Pennines, not very far from our southern boundary.

It has been reported, on good authority, from Lauder, but confirmation of that is very desirable. Perhaps some of our members may undertake it ?.

93. X. POLYODON. Dark Arches.—One of our most abundant moths ; notoriously variable. Light coloured and almost black individuals occur nearly everywhere, extreme forms of the latter being usually scarcer than the type.

94. X. RUREA. Cloud-bordered Brindle.—Another universally abundant and equally variable species : the very distinct var. *combusta* is sometimes quite numerous with us.

95. X. HEPATICA. Clouded Brindle.—Not common, but has occurred to a good many of our collectors. Shaw was the first to detect it in the district, a specimen bred from a pupa from the banks of the Ale, near Eyemouth, in 1874. Two years later he took a moth at sugar not far from the same place, but neither he nor his friend Buglass ever managed to get another. Kelly recorded two from Lauderdale in 1880, our only other locality for Berwickshire.

In Roxburghshire, Mr Grant Guthrie took it at Wilton Hill, near Hawick, in 1895.

For Northumberland, it was not included in Selby's list, but in 1885 I saw specimens in Mr Bruce's collection taken at Adderstone Hall, which adjoins Twizell, and in 1899 took one myself at Swinhoe Broomford, a few miles further to the south-east. In the following year one was obtained at Berwick. Robson states that Finlay found it " not commonly " in Meldon Park, and that it had also been taken at Hexham by Maling, and at Jesmond, near Newcastle. At Alston it is not very uncommon.

96. APAMEA BASILINEA. Rustic Shoulder-Knot.—Common everywhere and generally abundant.

97. *A. GEMINA*. Dusky Brocade.—Generally distributed over the district and usually common if not abundant. Very variable ; but the var. *remissa* is wonderfully constant, apt to be confused with *Hama furva* and even with *Hadena chenopodii*.

98. *A. UNANIMIS*. Small Clouded Brindle.—Has been found at both extremities of the district, but seems to be very local and must be regarded as far from common.

For Northumberland, it was included in the Twizell list as *secalina*, and was found sparingly in 1871 and 1872 at Jesmond, and in the neighbourhood of Newcastle. In 1886 I bred one from a pupa found under the bark of a sallow at Allerdean Mill, and subsequent search proved that the chrysalides could be taken there in similar manner in fair numbers. Both larvæ and pupæ were afterwards found, not uncommonly, under loose bark on the larger willow-trees (*Salix alba*) growing at the mouth of the Whitadder. *Phalaris arundinacea* or other grasses probably form the food-plant in both these localities.

In Berwickshire, Shaw got only one at Eyemouth (in 1875) ; Buglass two at Ayton ; at Broomhouse, on the Whitadder, Adam Anderson found it not uncommon ; and it has been got, rarely, at Lauder.

The moth may perhaps have been passed over in other localities, as *A. oculea*, but we have no other records for the district. It occurs abundantly in some parts of Durham, and is not regarded as very rare in Cumberland.

99. *A. OCULEA*. Common Rustic.—Abundant throughout the district, both light and dark varieties and many intermediate forms occurring everywhere with puzzling regularity.

100. *A. OPHIOGRAMMA*. Double-lobed.—Was included in Selby's *Fauna of Twizell*, but has never been traced elsewhere in the district. The larvæ feed on *Phalaris arundinacea*, however, which is a common plant with us, and it is not, therefore, a very unlikely insect to occur here. It has once been taken at Hartlepool, but seems to be unrecorded for Scotland.

101. *CELÆNA HAWORTHII*. Haworth's Minor.—Well distributed over all our moors, and not uncommon in most parts of

the district. The moth flies a good deal in the daytime; it may also be found at rest on peat-stacks and shooting-butts. The larvæ on " Moss-troopers " (*Eriophorum vaginatum*), the stems of which are often mined by them although growing in water—see my *Wild Life in Wales*, p. 108. It is not unusual to find the moth on our seaside links, as at Cheswick and Ross, sitting upon flowering-heads of Ragwort, and where *Eriophorum* does not grow, other grasses, such, for example, as *Poa fluitans*, no doubt supply the pabulum.

102. MIANA LITEROSA. Rosy Minor.—Well distributed and common enough in most parts of the district, but most numerous near the coast.

103. M. STRIGILIS. Marbled Minor.—As common and well distributed as the last, and not showing any particular preference for the coast; typical marbled forms far outnumbering the darker varieties with us, which Robson says is the reverse of what occurs in Durham and on Tyneside.

104. M. FASCIUNCULA. Middle-barred Minor.—Distributed all over the district and very common in most places. The males fly vigorously just at sunset and are then conspicuous enough in all rushy places.

105. M. FURUNCULA. Cloaked Minor.—Another common species occurring from the sea-links to well up amongst the westward hills. The almost unicolorous variety figured by Barrett from an Irish specimen (fig. j, pl. clxxxvii) is not uncommon with us and was for long confused with an entirely different insect, *Hydrilla arcuosa*,* by some of our earlier collectors.

106. M. CAPTIUNCULA. Lesser Minor.—Either absent from the Scottish counties or overlooked by collectors there, for we have no records from the north of the Borders. I am inclined to think that it must have escaped attention, for in certain parts of Northumberland it has proved to be not uncommon, while on the Durham coast Robson and others found it abundantly in restricted areas.

* *Chortodes arcuosa* in Newman. See No. 140.

Personally I have taken only odd specimens, west of the Kyle Hills on the road to Holburn, and near Chathill Station. Robson records that Mr Patterson took it at Alnmouth, and Mr Finlay west of Netherwitton.

107. *HYPPA RECTILINEA*. The Saxon.—The home of this species seems to be in the Scottish Highlands, but it is found in Cumberland, and we have the following records :—

For Northumberland, I saw one in 1883 in the collection of Mr Bruce, taken at Adderstone Hall a short time previously ; and in June 1921 Mr W. G. Watson got a good series at sugar at Sidwood, North Tynedale.

For Roxburghshire, Adam Elliot took a single specimen at Samieston, Jedburgh, in 1880 ; and Mr W. Renton has recorded the finding of “a few at raspberry blossom annually near Hawick.” *

108. *EUPLEXIA LUCIPARA*. Small Angle Shades.—Well distributed through the district, but looked upon as rather rare by some collectors.

About Berwick it was comparatively common, Scremerston, Cheswick Links, Haggerston Mead, Middle Ord, Allerdean Mill, etc. Further afield I have taken it at Langleyford, Chillingham, and other places, as well as at Houxty, and on South Tyne below Alston. Other Northumbrian localities are : Twizell, Sidwood, the Morpeth district, and the vicinity of Newcastle.

For Berwickshire, Foulden, Ayton, Eyemouth, Broomhouse, and Fans, Earlston.

For Roxburghshire, there are records from Jedburgh, Kelso, Hawick ; and round Galashiels.

109. *PHLOGOPHORA METICULOSA*. Angle Shades.—Common throughout the district, and one of our most delicately shaded moths. It must also be accounted one of the hardiest. As is very well known, there is a succession of emergences through the greater part of the year, almost as many moths leaving the chrysalis during the winter months as in summer. But I have often been surprised to see them creeping up the dead stem of some plant, to dry their yet unfolded wings, when deep snow

* *Entomologist* for 1903, vol. xxxvi, p. 163.

was covering the ground and the thermometer hanging beside them stood several degrees below freezing-point! They seem to be indifferent to temperature and frost appears to have no ill-effect upon the development of their wings. True hyperboreans? Some dates of such emergences, taken almost at random from my journals, are: 4th November, 7th, 19th, and 22nd December, 2nd January, and 14th February.

110. *HELOTROPHA FIBROSA*. The Crescent.—A rare moth in our district, and only taken singly.

We got one in the garden at Berwick in July 1882. One was taken in Jesmond Dene in August 1878; and one by Finlay in Meldon Park (Robson), which exhausts our Northumbrian records.

In Berwickshire, Buglass got one at Eyemouth in 1880, and another at Ayton a few years later. About the same time Shaw took one at sugar on the sea-banks, Eyemouth, but neither of these indefatigable collectors ever got another, and no other captures are known to me.

111. *HYDRÆCIA NICTITANS*. Ear-Moth.—An abundant and well distributed species all over the district, particularly addicted to Ragworts. Very variable both as to size and colouring.

112. *H. MICACEA*. Rosy Rustic.—Well distributed over the district, and fairly common in most places, but perhaps most abundant along the coast. It flies from August to October, and was always one of the most persistent visitors to our windows at Berwick. In Roxburghshire, it is reputed to be less common, but has been reported from most stations. Varies very greatly in size.

113. *H. PETASITIS*. Butter-bur.—As the food-plant of the caterpillar (*Petasites vulgaris*) is a rampant weed by the sides of many of our streams, one might naturally suppose that this moth would be general in the district, but we have very few definite records. Probably if the larvæ were more systematically sought for it would be proved to be less scarce than appears. I never found the larvæ in Northumberland (it having been little looked for), but have within the last few years met with it at

Alston, where the Butter-bur is much less prevalent. Where there is too much of the plant, digging it up becomes a tedious matter, and it may be well to recall that, as already stated in dealing with these species, *Hepialus velleda* and *H. sylvanus* may both be found feeding in the roots of *Petasites*.

The only records for any part of the district known to me are that I took a moth at Berwick in June 1901, and had another from Chillingham the following summer.

114. GORTYNA FLAVAGO. Frosted Orange.—Rather common along the coast of north Northumberland from Berwick to Holy Island and Ross. Selby got it at Twizell, and I have found it at Swinhoe, near Chathill Station, Embleton, etc. It has also been taken at Jesmond and elsewhere round Newcastle. Inland it appears to be scarcer, but occurs at Houxy on North Tyne, and doubtless other places.

In Berwickshire, Shaw and Buglass each got it in the Eyemouth district, but only very sparingly; Renton recorded it from Threeburnford in 1887, and later from Gordon Moss. On Coldingham Moor I have found an occasional caterpillar in thistles and yellow ellshinders.*

There seem to be no records for Roxburghshire.

We bred numbers of the moth each year at Berwick from larvæ and pupæ found in the stems of ragwort, thistles, burdock, and other plants, sometimes three or four in a stem! In some seasons the majority of them would prove to be stung, and it was noticed that the ichneumons from these did not emerge until the following summer, although the moths come out in September. This seems curious until it is remembered that the moth passes the winter in the egg state, and that the parasite therefore finds its pabulum just ripe for stinging when it is launched into the world.

At Alston, I have seen the caterpillar feeding in Meadow-sweet; probably few plants come amiss to it whose stems are thick enough to be mined.

115. NONAGRIA TYPHÆ. Bull-rush Moth.—I recorded the finding of this species in ponds about Scremerston and Ancroft in the Club's *History* more than forty years ago (vol. xi, p. 561),

* =Ragwort, *Senecio Jacobææ* and *S. aquaticus*.

and later (vol. xv, p. 304) chronicled its presence also at White-dam Head, within the Borough of Berwick. It still flourishes in these stations, as well as in Nabdean Mill-pond near Paxton. The last-named site gives the moth a Berwickshire status, and it seems highly unlikely that it should not be found in other places where the Bull-rush (*Typha latifolia*) grows, but I know of no other record from any part of Northumberland or the district, and the Paxton record seems to be the first for Scotland.

The larvæ tunnel the flowering-stems of the plant, and the pupæ may readily be collected from the borings in September; they are easily reared, the moths appearing towards the end of that month and in October.

116. *TAPINOSTOLA FULVA*. Small Wainscot.—Well distributed throughout the district and taken by all our collectors from Selby downwards, localities are therefore unnecessary. It flies just after sunset and disappears amongst the grass, if knocked down, in a surprising manner. Generally common, from the sea-banks to high out upon the hills, up to fully 1500 feet. It varies greatly in the ground-colour of both upper and under wings from whitish-drab to smoky-brown, and red-brown.

117. *T. ELYMI*. The Lyme Grass.—To William Shaw belongs the honour of first discovering this species in our district—on Ross Links in 1888—and I do not know of any other records for Northumberland, although the food-plant (*Elymus arenarius*) is not uncommon elsewhere upon the coast, and the moth might probably be found if carefully looked for.

118. *CALAMIA LUTOSA*. Large Wainscot.—I do not know of any Northumbrian record for this; but in Roxburghshire, Adam Elliot took two specimens at Samieston, Jedburgh, in the autumn of 1880; and for Berwickshire, John Anderson found one at rest on a tree-trunk at Preston, near Duns, in 1875.

It is worthy of note also that William Evans had two moths of this species sent to him from the Isle of May on 3rd October 1913, and one from the Bass Rock at the end of summer 1908.*

* "Lepidoptera, etc., at Scottish Lighthouses." *Scottish Naturalist*, 1914, p. 230.

[*CALAMIA* (*LEUCANIA*) *PHRAGMITIDIS*.—The caterpillars alluded to in my paper in the Club's *History* in 1895 (vol. xv, p. 304) and believed at that time to belong to this species, were later proved to be *Chilo phragmitellus*, which will be dealt with in due course.]

119. *LEUCANIA IMPURA*. Smoky Wainscot.

120. *L. PALLENS*. Common Wainscot.—Both well distributed and common in all suitable places throughout the district.

121. *L. COMMA*. Shoulder-striped Wainscot.—As widely distributed as the above and taken all over the district, though never so abundantly. It comes to sugar well enough, but is more attracted by flowers of Valerian, etc. It is commonest on the coast, but I have seen it at over 900 feet above the sea in the glens.

122. *L. LITTORALIS*. Shore Wainscot.—Was taken by Maling at Newbiggin-by-the-Sea in 1878, having previously occurred there in 1869, but the only other records for any part of the district, known to me, are that I took it on Cheswick Links in 1901, and shortly afterwards on Holy Island. It certainly ought to occur elsewhere upon our links.

123. *L. CONIGERA*. Brown-line Bright-eye.—Well distributed over the district and generally common. Along the coast it is often very numerous, coming freely to sugar and Valerian flowers. Inland it may not be quite so universal, but extends to Lauderdale, Galashiels, Hawick, Jedburgh, Sidwood, and Hoxty.

124. *L. LITHARGYRIA*. The Clay.—Another common and well-known species all over the district; abundant upon the coast and sometimes hardly less so in the west.

125. *PANOLIS PINIPERDA*. Pine Beauty.—Well distributed and not uncommon where pine-woods prevail, twenty or thirty not being an unusual number to find at sallows on a favourable night. It is perhaps hardly necessary to give localities, but a few may be mentioned.

Northumberland: Scremerston, Kyoel, Beanley, Morpeth, Whitfield, Houxty, and Corbridge.

Berwickshire: Ayton, Pease Dean, Gordon Moss, and Earlstou.

Roxburghshire: Kelso, Jedburgh, Hawick, and the neighbourhood of Galashiels.

A full-fed caterpillar found at Kyoel in August 1891 had the lateral strips (usually orange-red or yellow) of a bright lake-red.

126. *TÆNIOCAMPA GOTHICA*. Hebrew Character.—Abundant all over the district. The bulk of our north Northumberland moths emerge during April and up to the middle of May, but many appear a month earlier, and a few continue coming out up to the end of June. Mr Richard South said that some I sent him in 1889 were darker in colour than any he had seen elsewhere.

[*T. MINIOSA*. Blossom Underwing.—Was included in Selby's *Fauna of Twizell*, but with a " ? " after it, and he never seems to have removed the doubt. In an MS. list of his, drawn up apparently about 1855 (but never published), the ? still remains. It has occurred once or twice, I believe, in Yorkshire and Westmorland; but there is no other record known to me for any part of our district.]

127. *T. CRUDA*. Small Quaker.—Taken all over the district, but seldom in any great numbers. About Berwick it was comparatively scarce, and throughout Northumberland seems to be more common inland than on the coast. Subject to considerable variation in depth of ground-colour.

Localities in Berwickshire that may be mentioned are Ayton and Eyemouth (scarce as a rule), Pease Dean, Fans, and Lauderdale. For Roxburghshire, Yetholm, Kelso, and doubtless elsewhere.

At Galashiels an unusually dark variety has been taken, almost as dark as *Orthosia lota*, which has been given the name of *haggartii* by Mr Tutt in honour of its discoverer.*

128. *T. STABILIS*. Common Quaker.—Abundant everywhere,

* A description of this form will be found in the Club's *History*, vol. xix, p. 188, taken from the *Entomologist's Record* for July 1902.

appearing at sallows in March and April. Very variable both in size and colour.

129. *T. POPULETI*. Lead-coloured Drab.—One of the rarer of the family. It ought to occur on the Borders, but we never met with it, and, so far as I know, the Morpeth district, where Finlay found it, “but never plentifully,” is the only Northumberland record.

130. *T. OPIMA*. Northern Drab.—Another scarce member of a usually common genus, for which Finlay is again the only person who seems to have taken it in Northumberland. He “found it in several places in the Morpeth district but never common.”

Robert Renton sent me a specimen in 1883 from Gordon Bog, where he took a few about that time and subsequently. Our only other knowledge of the moth in Berwickshire being that I got one at White Hall, Chirnside, in 1899. Mr Grant Guthrie has taken it at Hawick, our only record for Roxburghshire.

131. *T. INSTABILIS*. Clouded Drab.—Abundant everywhere and as variable here as elsewhere, some of our captures being very dark, others beautifully marbled.

132. *T. MUNDA*. Twin-spotted Quaker.—I hardly think this can be so rare with us as the paucity of records might lead one to suppose, but personally I never met with it, and few of our collectors have had any better luck. Dr Buchanan White gives it as very local in the Tweed area; Kelly recorded it from Lauderdale, Berwickshire; and Adam Elliot includes it in his list of Roxburghshire lepidoptera without special remark.

In Northumberland, T. J. Bold spoke of it as “scarce in 1871 at sallows in April,” in the neighbourhood of Newcastle. No one else seems to have got it in our area.

It has been found by Professor Heslop Harrison and others in County Durham; as well as in the north of Cumberland. I took it at Alston in 1916.

133. *T. GRACILIS*. Pondered Quaker.—More frequent than the last, but still very local.

For Northumberland, Selby got it at Twizell; and in the

possession of Mr John Bruce, in 1886, I saw several examples recently taken on the adjoining estate of Adderstone Hall. In 1898 I had it from Chillingham Park. Bold found it sparingly at sallows in 1871 and 1882 in the neighbourhood of Newcastle. Professor Heslop Harrison has had it from Ninebanks, West Allendale; and in 1916 a single specimen was taken at Houxy. In the same year I found it at Alston.

In Berwickshire, James Hardy took it in Pease Dean in 1843,* but I know of no other specific record for that county.

In the neighbourhood of Galashiels Shaw found it common.

134. *PACHNOBIA RUBRICOSA*. Red Chestnut.—Well distributed over the district, but not very common.

Selby got it at Twizell, other Northumbrian localities being Allerdean Mill, Fenwick Wood (fairly numerous some years), Houxy, Sidwood, Morpeth ("generally distributed and common"—Finlay), Jesmond, and the neighbourhood of Newcastle.

It has been noticed in several years at Alston since 1913.

In Berwickshire, Buglass got it sparingly at Ayton, at sallows, in 1875, and subsequently; John Anderson at Preston in 1873; and Renton at Fans.

Adam Elliot found it not rare in Roxburghshire; and Shaw very commonly about Galashiels.

William Evans recorded it from Barnsness Lighthouse in April 1912, having found it previously in several places in the Forth area.

135. *RUSINA TENEBROSA*. Brown Feathered Rustic. — A common species on both sides of the Border, and so reported by every collector. In south Northumberland Robson did not regard it as so universally common but reported it from Morpeth, near Newcastle, and Hexham. To this I may add that I have seen it at Houxy, and that Mr Watson gets it at Sidwood.

About Berwick females were always curiously hard to find; males came freely to sugar and flowers, but the opposite sex very rarely, an experience that has been remarked upon by other collectors.

136. *MANIA MAURA*. Old Lady.—Well distributed over the

* *Hist. B.N.C.*, vol. ii, p. 110.

district, and often quite common, but considered scarce round Galashiels. About the middle of August is its ordinary time of emergence with us, but I have seen it quite numerous a full month later.

Its favourite haunts are river sides where there are plenty of bushes; with the following experience before us, we might be excused for dubbing it a water nymph?

I was one day fishing a fairly rapid stream on South Tyne, when my attention was drawn to something flapping in the water near the opposite shore. I had not seen it enter the water, but in the middle of a summer's afternoon it could hardly have flown in without being observed. There were no trees or bushes near from which it could have tumbled, and my impression was that the swimmer must have voluntarily entered the water from the wide gravel-bed by which the river was there flanked. I thought at first that it was a bird, then perhaps a bat. It breasted the little wavelets with remarkable ease, holding its head high and vigorously beating the water with its wings. The stream was quite ten yards wide, but very soon the mysterious swimmer had gained my side, and crept nimbly up the bank to take covert in some loose flotsam left there by the last flood. I then, to my amazement, recognised an Old Lady, looking not a whit the worse for her swim, and felt that there was nothing for it but to doff my cap and leave her to dispose her finery in fitting seclusion.

137. *NÆNIA TYPICA*. Dark Gothic. — Generally common throughout the district; though Shaw called it "scarce" at Galashiels in 1904.

138. *AMPHIPYRA PYRAMIDEA*. Copper Underwing. — I know nothing of this in the district except for the instance given by Robson—"A single specimen of this species was taken in Meldon Park in August 18—, by Mr Finlay." Barrett says this is the only record north of Yorkshire.

139. *A. TRAGOPOGONIS*. The Mouse. — Common throughout Northumberland and Berwickshire, also in the eastern part of Roxburghshire, but reported to be scarcer round Hawick and Galashiels.

140. *HYDRILLA ARCUOSA*. Small Dotted-Buff. — This appeared in our old lists as *Miana arcuosa*.

Generally common throughout the district and often abundant. By many of our old collectors used to be confused with *Miana furuncula*.

Amongst localities may be mentioned : for Northumberland, Twizell (Selby), Allerdean, about Berwick on both sides of Tweed, Goswick, Wooler, Glanton, Morpeth, Newbiggin-by-the-Sea, Houxty, Sidwood, and Whitfield. For Berwickshire, Ayton, Coldingham, and Whitadder banks. For Roxburghshire, Yetholm, Hawick ; and round Galashiels.

141. *STILBIA ANOMALA*. The Anomalous.—This is usually reckoned a rare species, but may have escaped the observation of some collectors. At any rate the records show a tolerably wide distribution. It does not seem to have been got by any of the earlier collectors.

For Northumberland, my only specimen came from John Bruce in 1887, he having taken it with two others at Adderstone Hall the previous summer ; and there are no other records for the county.

For Berwickshire, Adam Anderson got one on Drakemire Moor in 1874 ; Shaw three at sugar at Eyemouth in 1876 ; and Buglass four in Ayton Woods, also at sugar, the same year.

For Roxburghshire I know of no station ; but James Shaw (son of William) wrote me on 31st August 1896 that he had taken four at the beginning of that month, and seen other six, all at rest on palings within a space of 30 yards, at Galashiels ; the first and, I believe, only captures for that district. W. Renton has since recorded its occurrence at Ettrick Head, Selkirkshire.

142. *CARADRINA MORPHEUS*. Mottled Rustic.—Somewhat local in distribution, and not generally numerous, but sometimes becomes so in certain seasons.

About Berwick it is not uncommon on either side of the Tweed ; Selby got it at Twizell ; and I have taken it at Scremerston, Kyloe, Haggerston Mead, and Houxty, North Tyne. It has also occurred about Newcastle, and Mr Watson has taken it at Sidwood.

In Berwickshire, it is fairly common at Eyemouth and Ayton, and no doubt would occur in other places if looked for.

For Roxburghshire, Mr W. Renton has recorded it from Hawick.

143. *C. BLANDA*. Powdered Rustic.—Found pretty commonly in all parts of the district that have been carefully worked, more abundantly along the coast than inland. Comes very freely to Valerian, Wood-sage, and other flowers.

[*C. ALSINES* has often, and from our earlier days, been recorded from several localities (Twizell, Berwick, Eyemouth, Hawick, etc.), but the suspicion is always present of confusion with the last, the darker varieties being apt to be put down as *alsines*, the paler ones as *blanda*. Personally I have never seen *alsines* in the district, either at large or in collections, but scepticism should have a limit, and younger lepidopterists need not be discouraged from looking out for the rarer insect on that account.]

144. *C. CUBICULARIS*. The Hay Moth.—Everywhere abundant, and well earning its trivial name from its fondness of hiding on hay-cocks and stacks; when disturbed from which it is eagerly taken, on the wing, by swallows, fly-catchers, and other birds. It seems, indeed, to be a favourite food with many birds, and in all stages. I have watched tits returning again and again to explore the face of a wall where a large colony of the larvæ were pupating, carrying off, indifferently, both pupæ and larvæ with which to feed their young.

The moth may be found throughout the year, hibernating individuals being sometimes not uncommon in hay-lofts and similar places.

145. *GRAMMESIA TRILINEA*. Treble Lines.—Selby got it at Twizell, the type as well as the dark variety *bilinea*, and I got a single specimen at Haggerston Mead in 1899, but there are no other records known to me from any other part of the district.

146. *DYSCHORISTA UPSILON*. The Dismal.—Seems to be very partially distributed in our area, but is sometimes abundant enough where it occurs.

For Northumberland, Selby got it at Twizell ; round Berwick it may be called common about the mouth of the Whitadder, at Ord, Haggerston, and Kylee ; while I have also taken it at Houxy on North Tyne, and in the Alston district. Bold found it in Jesmond Dene so long ago as 1871, and since that date it has occurred in several places round Newcastle.

In Berwickshire, Shaw and Buglass each found it fairly plentifully at Eyemouth and Ayton ; and Elliot recorded it from the neighbourhood of Jedburgh and Kelso for Roxburghshire.

In all its stations it is most successfully gathered in the larval state, the caterpillars being easily found beneath loose bark on the trunks of willow trees, particularly of *Salix alba*.

147. *D. SUSPECTA*. The Suspected.—Must be regarded as a rare species, although the localities given below show that it has a wide distribution over the district.

For Northumberland, we took occasional specimens, in various years, about Berwick and Kylee. In 1900 I got one at Haggerston Mead. Robson recorded it from Coal Law Wood, Morpeth ; and it occurred at Houxy in 1919, and Sidwood the following year.

In Berwickshire, Buglass and Shaw each got it, sparingly, at Ayton and Eyemouth, from 1876 onwards. Kelly doing the like in Lauderdale, but marking it as “very rare” in 1880.

Adam Elliot recorded it for Roxburghshire in 1882.

About Galashiels it occurs, but has never been looked upon as anything but scarce.

148. *EUPERIA FULVAGO*. Angle-striped Sallow.—Rare. Was recorded from Twizell by Selby ; I got one at Haggerston Mead in 1900 ; and Mr J. S. T. Walton one at Stocksfield in 1917. Other Northumbrian specimens are believed to have occurred, but the above are all that can at present be definitely included here.

North of the Border our only record is of a single specimen captured by Buglass at Burnmouth in 1880, well known in his cabinet for many years afterwards to all his entomological friends.

149. *CALYMNIA TRAPEZINA*. The Dun Bar.—Generally distributed over the district, and common in most suitable places.

Its wide range of variation is well known, and the Borders are no way behind the rest of the country in producing striking examples. We have had specimens almost as devoid of markings as fig. *e* on pl. cxciv of Barrett's work, and some very bright coloured ones. Mr J. S. T. Walton had one at Stocksfield in 1917, showing a curious colour-resemblance to the ordinary form of *Crocallis elingvaria*. The beautiful mould-like bloom that covers the pupæ is also worthy of remark, like mould it is easily rubbed off by careless handling.

150. *TETHEA SUBTUSA*. The Olive.—The only Northumbrian capture of this insect known to me was one taken by myself near the Old Dye Mill, above Wooler, in 1893; but it ought to occur elsewhere.

In Berwickshire, it has only been taken singly, at Highlaws near Eyemouth, in 1875 (Shaw); Preston on the Whitadder (Anderson) in August 1872; and in Lauderdale in 1874 (Kelly—"two or three at different places").

In Roxburghshire, Adam Elliot recorded it from near Jedburgh in 1882; and Mr W. Renton from the neighbourhood of Kelso in 1903.

At Galashiels it was taken by William Shaw, but he marked it as "scarce" there in 1904.

151. *ORTHOSIA RUFINA*. Flounced Rustic.—Appears to be always scarce with us, though the records indicate a fairly wide distribution.

For Northumberland, Selby got it at Twizell in September 1855; I took it many years ago at Kyloe, and, later, one or two near Berwick, and saw one in Mr Wallace's collection which he had got at Ancroft in 1890. Finlay got it, in some seasons commonly, at Coal Law Wood, Morpeth (Robson), and it has occurred in one or two places round Newcastle. Within recent years it has been taken at Houxty, North Tyne, and at Sidwood. Professor Heslop Harrison notes it as common in the Derwent Valley.

Berwickshire records are Ayton, Eyemouth, Aiky Woods and Abbey St Bathans (Kelly), Preston, Duns, and Hoardweil.

152. *O. FERRUGINEA*. The Brick.—Generally distributed and

common throughout the district, and as variable here as elsewhere.

153. *O. PISTACINA*. Beaded Chestnut.—Has been a good deal confused with allied species by some of our older collectors which renders records, or the absence of them, apt to be misleading. Upon Tyneside it has been taken in several places, sometimes rather commonly, especially on the south side of the river (Robson). About Berwick we took it at Allerdean, Haggerston Mead, Kylvie, and Scremerston; while James Shaw got several at Lilburn Tower.

I also took a specimen at Foulden Hag in 1900, which seems to be the only definite record for our northward district, although many years earlier Robert Renton thought he had taken it at Fans, near Earlstoun.

154. *O. LITURA*. Brown-spot Pinion.—Common throughout the district.

155. *O. LUNOSA*. Lunar Underwing.—Widely distributed over the district, and sometimes fairly plentiful, but as a rule must be regarded as decidedly scarce.

For Northumberland, Selby first recorded it from Twizell; in 1888 I received my first specimen from Miss Dickinson, taken in her garden at Norham that autumn; but ten years later found it coming, not uncommonly, to our windows at Haggerston Mead.

In Berwickshire, Buglass got one at Ayton in 1880, which remained for some years the only county record. Later he got at least one other, while Shaw took one at Eyemouth. Kelly, meanwhile, having taken it at Lauder.

For Roxburghshire, Elliot first recorded it in 1882 from the neighbourhood of Jedburgh, where he subsequently found it, sometimes rather plentifully, in September. About Galashiels it first occurred in 1899, and has since been taken there by Mr Haggart.

The late William Evans reported it as found more or less commonly at the lighthouses of May Island, the Bass Rock, Fidra, etc.,* failing not, with his accustomed perspicacity, to

* *Scot. Nat.*, December 1914.

remark on the special significance attaching to the finding of a moth, generally looked upon as uncommon in the district, in such numbers under such circumstances.

156. *O. LOTA*. Red-line Quaker.—Well distributed over the district; somewhat local, perhaps, but far from uncommon in certain seasons. Like the last, it was recorded by Evans from the lighthouse on the Isle of May, in 1907, but only a single specimen was obtained.

For Northumberland, Selby got it at Twizell. Round Berwick we used to take it fairly frequently, as well as at Scremerston, Haggerston, and Wooler. Robson has remarked upon its occurrence at Coal Law, Morpeth, and Jesmond; and there are several other records for the south of the county. I got it at Houxy a few years ago, and occasionally see it on South Tyne.

Localities for Berwickshire are: Preston near Duns, Lauder, Ayton, Eyemouth, etc.; while for Roxburghshire, Jedburgh, Hawick, and Kelso may be mentioned. About Galashiels Shaw regarded it as common.

I used to find the larvæ, which vary considerably in ground-colour, with the aid of a lantern at night feeding on the petals of various garden flowers—tiger-lily, for example,—as well as upon willows and other shrubs.

157. *O. MACILENTA*. Yellow-line Quaker.—As well distributed over the district as the last, but never, apparently, so common.

A few localities may be mentioned. Northumberland: Twizell, Haggerston, Ancroft, Kylee; Morpeth, and Newcastle (Robson); and Houxy. Berwickshire: Preston, Duns, Lauder, Ayton, Eyemouth, and Foulden. Roxburghshire: Jedburgh (Elliot) and Kelso. In the neighbourhood of Galashiels Shaw, in 1904, regarded it as scarce.

158. *CIRRHÆDIA XERAMPELINA*. Centre-barred Sallow.—Not common, but well distributed; possibly often overlooked, as, though it may be found year after year on some particular ash-tree, it may be looked for in vain on adjoining ones apparently as suitable.

My only Northumbrian specimen was taken as a caterpillar

on an old ash-tree at Chillingham in 1903 ; and the only other record for the county known to me is that mentioned by Robson, who quotes Finlay as finding imagines, " but never commonly," on ash-trunks in Meldon Park, near Morpeth, at the end of August and in September.

In Berwickshire, records are more numerous. Shaw and Buglass both got moths at Eyemouth and Ayton respectively in 1876. Adam Anderson had taken it, not uncommonly, the previous year at Broomhouse on the Whitadder, and when I called upon him, just twenty years later, I found a fine series in his cabinet, and he took me with pride to the one tree upon which they had all been captured. " There," as he said, " it is always to be found, but nowhere else about here." In 1874 it was found at Cockburn Law, a little higher up the Whitadder, by J. Stevenson.* It has also occurred at Preston, near Duns ; and in 1903 I took a single example near Edrington Castle which is also on the Whitadder, but much nearer to Berwick.

For Roxburghshire, one was taken by John Turnbull at Hawick prior to 1895. About Galashiels Shaw regarded it as scarce in 1904.

159. *XANTHIA CITRAGO*. Orange Sallow.—Rare ; or may have been overlooked ?

The first record for our district was in 1902, when two of the moths were captured at Galashiels by Mr Haggart, which was, I believe, the first time the species had been taken in Scotland. Since that date, however, both imagines and larvæ have been found fairly commonly in that neighbourhood.†

In 1903 I found larvæ in some numbers on lime-trees at Chillingham, which was then our only other locality, and an addition to the Northumbrian fauna, although Professor J. W. Heslop Harrison informs me that the moth has since been taken at Hexham, and he has put on record the fact that he has met with the larvæ plentifully in County Durham for some years past (*Vasculum*, 1918 and 1924).

160. *X. CERAGO*. The Sallow.—Well distributed, and sometimes common, throughout the district.

* J. Ferguson, *Hist. B.N.C.*, vii, 284.

† William Shaw, *ibid.*, xix, 189.

Localities that may be mentioned are—

For Northumberland : Twizell, Allerdean, Newham Bog, and pretty commonly along the coast both north and south of Berwick ; Coal Law Wood, Morpeth, Jesmond, and Haydon Bridge (Robson) ; Barhaugh and other places on South Tyne below Alston, Houxty, and Sidwood.

For Berwickshire : Ayton, Eyemouth, Fans, Gordon Moss, and Lauder.

For Roxburghshire : Hawick and Hoselaw Loch.

About Galashiels it has occurred commonly (Shaw).

161. X. *SILAGO*. Pink Barred Sallow.—Though seldom very numerous, is common enough all over the district to make it superfluous to specify localities.

More than once I have found this pretty moth at rest during daylight on a fading yellow leaf, and the close resemblance between leaf and insect is then so remarkable as to be almost uncanny, challenging speculation as to how far it may be possible for an insect to realize its “ protection colouring ” ?

On 9th September 1891 I found four of the moths amongst the fallen foliage beneath a small sallow-bush at Kyloe. All had but recently emerged (although their wings were quite dried), and each was hiding upon a withered yellow leaf an exact counterpart in colour to its own mottled wings. Although aware of the high intelligence displayed by certain insects—earwigs, for example—we are not accustomed to look for it in a moth ; yet how are such coincidences to be explained if all powers of “ reasoning ” be denied them ?

Occasionally *silago* has come to the light of our windows, frequently it is to be found sitting on the flower-heads of Ragwort during the day.

[X. *GILVAGO* was recorded by Selby as having been taken at Twizell in 1837 (*Hist. B.N.C.*, vol. i, p. 160), but the name *gilvago* was at that date of such uncertain application that (the specimen being no longer in existence) it seems undesirable to include the species here further than with this passing reference.

X. *aurago*, which has appeared amongst our ancient records, may, I think, be dismissed as probably a case of mistaken identity ; and in the same category must be placed *Oporina croceago*.]

162. *CERASTIS VACCINII*. The Chestnut.—Generally common, often abundant, throughout the district, along the coast as well as far up amongst the western hills.

163. *C. LIGULA* (*SPADICEA* of our old lists). Dark Chestnut. —Much less abundant than the last, but sometimes, locally, fairly common. Was formerly, probably, often confounded with the last, to which some of its forms bear considerable colour resemblance. They may, however, always be distinguished from it by the shape of the fore wings, which in *ligula* are narrower and have the apex pointed.

Of localities may be mentioned, for Northumberland, Twizell,* the neighbourhood of Berwick on both sides of Tweed, Kyle, Haggerston, and Langleyford (rather common).

For Berwickshire, Ayton (common), Eyemouth, and Lauderdale.

In Roxburghshire, it was recorded for the Jedburgh district by Elliot, and probably occurs elsewhere, being common about Galashiels.

164. *SCOPELOSOMA SATELLITIA*. The Satellite. — Common throughout the district; the caterpillar one of the worst of cannibals.

165. *XYLINA RHIZOLITHA*. Grey Shoulder-knot.—Buchanan White, in his *Insecta Scotica*, published in the early numbers of the *Scottish Naturalist*, gives the Tweed area for this, and has been followed by Barrett and other later authors.

White was always very careful about his records, and says (*Scot. Nat.*, vol. i, p. 163) that his Tweed information came from J. Hardy, A. Kelly, and J. Turnbull (all good men), but we have no more definite or more recent records for this species for any part of the district. It is not without some misgiving that it is included here, except within brackets.

166. *XYLOCAMPA LITHORHIZA*. Early Gray.—Robson quotes

* In his copy of Stephens' *Illustrations of British Entomology* (vol. ii, p. 162) is the following note in Selby's handwriting:—" *G. spadicea*. Twizell in October when the *G. vaccinii* is disappearing—a distinct species." An instructive comment to those of hard belief.

Finlay as "the only Northumbrian collector who records this species and he met with two only in Coal Law Wood," Morpeth. It is taken about Brampton and other places in Cumberland, but there are no other records for any part of our district known to me.

167. *CALOCAMPA EXOLETA*. Sword-Grass.—Well distributed over the district, common in most places, and not requiring the specifying of localities.

William Evans received it from the lighthouse keepers at St Abb's Head.

168. *C. VETUSTA*. Red Sword-Grass.—Also distributed over the whole district, though so much less common than the last that it is seldom taken more than singly, or at most two or three at a time. It was likewise received by Evans from several light-houses, a fact worthy of special attention.

Its beautiful caterpillar never fails to attract attention; my journal contains an appreciative note of one found creeping over the road near Chillingham more than fifty years ago, the carriage in which my mother and I were driving being stopped in order to pick it up!

The moth comes very freely to sugar on fine nights during winter, and has been so taken by me as early as August and as late as the middle of April.

When nearly every collector has taken it, albeit only occasionally, the enumeration of localities seems scarcely necessary, but a few may be mentioned. For Northumberland: Berwick, Scremerston, Ancroft, Haggerston, Alnwick, Morpeth, Fenwick Wood, Wooler, and Houxty.

For Berwickshire: Ayton, Eyemouth, Foulden, Cockburnspath, and Whitsome.

For Roxburghshire: Jedburgh, Hawick, Kelso, and Yetholm (Cherrytrees).

169. *CUCULLIA VERBASCI*. Mullein Shark.—Mr James C. Haggart has recorded this species from the neighbourhood of Galashiels (*Entomologist*, February 1900, vol. xxxiii, p. 44). It has been taken in County Durham, and is an insect that might visit us again, but I know nothing more of it except that I believe

it has been reported to have occurred near Haydon Bridge, Northumberland, but the details I have not been able to obtain.

170. *C. ABSINTHII*. Wormwood Shark.—Was included in the *Fauna of Twizell*, but the fact that its only known haunts in this country, at the present day, are in the south and south-west of England, and one place in Suffolk, caused Robson to suggest that a mistake in identification had occurred. That, of course, is always possible; but the hypothesis that so distinct a species as the present had been confused with *C. chamomillæ* is too inconsistent with Selby's well-known accuracy of observation to appeal to me. I think it far more likely that *absinthii* may have wandered so far north, and, should that have occurred, the attractions of Twizell for such waifs have been too often demonstrated to require comment, besides being patent to all who were familiar with the place. Admittedly our area lies a little beyond the ordinary limits of distribution of most of the Sharks (as well as of many other insects that have been proved to visit us), but our natural fear of perpetuating an error must not be allowed to warp our judgment in taking note of events. Some of these insects may be retreating, or they may be showing a disposition to extend their range, and, in either case, old records may some day be of more interest than now appears.

171. *C. CHAMOMILLÆ*. Chamomile Shark.—Very rare, unless it may sometimes have been overlooked with us.

Our only records are: for Northumberland, two specimens taken at rest in Jesmond Dene, Newcastle, by William Maling, in June 1874; one (which I saw) taken at Honeysuckle at Adderstone Hall by Mr J. Bruce in 1884; and for Berwickshire, one recorded by Buglass as taken by W. Cummins at Ayton Castle in 1876. Barrett, following Buchanan White, gives it as "moderately common at Dunbar, and is found occasionally throughout the Tweed, Forth, and Clyde districts and in Perthshire." Further definite records for our area are, however, badly wanted.

172. *C. UMBRATICA*. Large Pale Shark.—Well distributed over the whole district; common, but seldom very numerous.

I have occasionally seen it on the wing in bright sunshine, a

noble object poised over a flower. It has the power of erecting or laying flat the crest on the thorax.

173. *PLUSIA CHRYSITIS*. Burnished Brass.—Common, and distributed all over the district, from the seashore to far out amongst the hills, to over 1000 feet. In many places it is abundant, and the pretty larvæ often attract notice on a bed of nettles. They are generally said to hibernate when quite small, but this is at least not an invariable habit with us, for I have sometimes found them full-fed in August and September, and spinning up.

174. *P. MONETA*. The Golden-8 Moth.—The spread of this species, not only in this country but over a large portion of western Europe, furnishes “one of the most complete records of the immigration and establishment of a species yet observed.” For, although two specimens appear to have been taken in Kent so long ago as 1857, and to have remained undetermined by their captor until 1893, it is only since 1890 that the moth has been found over the greater part of England, and in ever-increasing numbers. A good account of its gradual colonisation of northern Germany and the Netherlands, since about 1875, is given by Barrett (*Lepidoptera of British Islands*, vi, pp. 105–7); and a later one, with map, by Mr Charles Nicholson, demonstrating its rapid spread in this country, will be found in the *Vasculum* for January 1926, pp. 56–64, to each of which interested readers must be referred.

I do not know that it has yet been taken anywhere in Scotland, but for Northumberland one was taken by Dr Garrett at Hexham on 2nd August 1924, and it may not be out of place to mention that another came to the light of my window at Alston on 15th August 1926.

It is a moth that is sure to turn up in other localities before long, and one for which our young collectors should keep a look-out.

175. *P. BRACTEA*. Gold Spangle.—Well distributed over the district, and cannot be called rare, though it is not often seen in any great numbers. In certain seasons, however, and in some places, it is fairly numerous.

The moth is usually taken on the wing at Honeysuckle, Valerian, Snowberry, and other sweet-smelling flowers, but now and then I have found it at rest during the day amongst grass and other low herbage, a rather memorable instance of which may be given. On 30th July 1920, whilst trimming the grass edging to a border in the garden at Alston, which had become rather overgrown and shaggy, and was at the time sodden with wet, I happened to turn out, in rapid succession, single specimens of *Plusia bractea*, *P. festucae*, and *P. chrysitis*. They were all in finest condition and were found in hiding right down at the roots of the grass, and a splendid sight they afforded as they sat side by side, where I had placed them in the sun, quivering their wings preparatory to taking flight. Occasionally I have had all three species come in at my windows to light.

Amongst localities may be given—For Northumberland: Berwick (sometimes in some numbers), Ancroft, Haggerston Mead, Warkworth, Morpeth, Hexham, West Allendale; and Houxty and Sidwood, North Tyne.

For Berwickshire: Cleekhimin, Gordon, Cumledge Mill, and Broomhouse on the Whitadder (not uncommon), Preston, Duns, and Lauder.

For Roxburghshire: Jedburgh, Kelso, and Hawick. Looked upon as very scarce in the neighbourhood of Galashiels (Shaw, 1904).

176. *P. FESTUCÆ*. Gold Spot.—Less frequently seen than the last, but has been taken, usually only singly, throughout the greater part of the district. It is generally taken on the wing at night, but, in addition to the instance mentioned when dealing with *P. bractea*, I found one at rest amongst potatoes at Alston on 16th August 1923.

Some localities are—For Northumberland: Berwick, Scremerston, Ross Links, Twizell, Meldon Park, Morpeth; and Sidwood, North Tyne (several).

For Berwickshire: Foulden, Preston, and Duns.

For Roxburghshire: Hawick (sometimes not uncommon), Jedburgh, and Yetholm.

177. *P. PULCHRINA*. Beautiful Golden-Y. — Distributed throughout the district and generally fairly common. It is

usually said to pass the winter in the larval state when little more than half-grown. It may therefore be of interest to note that, exceptionally, I have reared it from pupæ gathered in the autumn, the moth emerging the following July; but that Nature hardly intended that it should so hibernate seems testified by the flimsy nature of the cocoon and the (occasionally at least) insecure sort of hibernacle chosen. In the autumn of 1914 I gathered a number of pupæ spun-up on the green (but then fast decaying) leaves of lettuce in the garden at Alston, some of which emerged in the house in November and December, partly into *P. pulchrina*, but a good many into *P. gamma*. But some of them lay through the winter and produced imagines in July, of both species, the first *pulchrina* appearing on 16th July.

Usually the full-fed larvæ may be found with us about the middle of June, and amongst other plants on which I have sometimes found them may be mentioned the common hemlock (*Conium maculatum*).

178. *P. IOTA*. Gold-Y.—As well distributed as the last throughout the district, though, in most places, not generally so common. Like it, and the rest of the family, it is very partial to the flowers of Honeysuckle. It also comes to light.

179. *P. GAMMA*. Silver-Y.—Abundant all over the district, and liable to appear at all seasons of the year. I have more than once seen it on the Farne Islands, but, then, its migrations, or wanderings, are well known. We have had several specimens, taken about Berwick, as small as that figured by Barrett—pl. ccxliii, fig. 1c.

From pupæ collected at various times, I have had the moth emerge in my breeding-cases from April up to as late as 4th November. In 1925 a number of larvæ spun-up near the tops of the fronds of a lady-fern on our rockery at Alston, and produced their moths, in the open, at intervals, from the beginning up to quite the end of October.

I have seen a *gamma* captured on the wing by a robin and promptly swallowed, but the robin is a well-known devourer of moths of many kinds.

180. *P. INTERROGATIONIS*. Scarce Silver-Y.—Well distri-

buted over all our moorlands, on both sides of the Border, and far from rare on most of them. Like so many of our moorland moths, it is a confirmed flyer by sunlight, although it may also be taken on the wing after dusk. Not infrequently it occurs in cultivated areas—several captures at Berwick,—but it has to be remembered that heather is seldom far absent, and was once almost universal over the country. Moreover, the larvæ are not entirely restricted to heather, nor even to *Ericaceæ*.

181. *HABROSTOLA URTICÆ*. Light Spectacle.—Well distributed over the district, and common in most places. On the wing with us in June and well into July. The larvæ vary considerably in their ground-colouring from green to grey; in August and September on nettles.

182. *H. TRIPLASIA*. Dark Spectacle.—Has been much less frequently recorded from the district than the last, but is not rare in some places.

At Berwick it used to turn up occasionally, but seldom more than singly. I took one on the wing, at dusk, near West Lyham, as late as 18th October (1881). Other Northumbrian localities being Haggerston Mead, Allerdean, Adderstone Hall, near Newcastle, Houxty, and on South Tyne from Alston downwards. In our garden at Alston it is often fairly numerous, being especially attracted to the flowers of Rocket (*Hesperis matronalis*), and also to the light of our windows.

In Berwickshire, Shaw got one at Eyemouth in 1874, but never saw another; and Renton, at Fans near Earlston, is the only other collector known to me who used to take it, except Hardy, who once or twice got an example at Cockburnspath.

There seem to be no records for Roxburghshire; possibly an oversight?

183. *CHARICLEA MARGINATA*. Bordered Sallow.—Although records from inland are much less numerous than from the coast, this moth is fairly well distributed over the district, and not uncommon.

Upon the links of the Northumberland seaboard I have generally found it abundantly, whenever looked for, wherever Rest-harrow was common, it being particularly plentiful about

Scremerston and Cheswick. Other localities for the county being Berwick, Ord, Wooler, Norham, Warkworth, and Staward.

For Berwickshire, it has been recorded from Eyemouth, Cockburnspath, and Broomhouse on the Whitadder; and for Roxburghshire from Hawick.

The larvæ may be gathered in quantities from beds of Rest-harrow, and vary greatly in ground-colour, from almost black to a very pale greyish-green, the sub-dorsal line whitish, yellow, or almost wanting. They are bad cannibals.

The moth comes readily to sugar, and occasionally flies in sunshine.

184. *HELIOTHIS ARMIGERA*. Scarce Bordered Straw.—Probably only an immigrant to this country, and has been rarely noticed in our district. Our only records are: for Northumberland, one taken, flying in sunshine, by my brother John, on Cheswick Links in September 1882.

For Berwickshire, one taken at Ayton by Simpson Buglass in 1875, another by the same assiduous collector at Eyemouth in 1877; one by William Shaw at Eyemouth in 1877, and another near the same place a year or two later; another at Ayton by Mr W. J. Bowhill about the same time. Barrett's statement of captures near Berwick in 1898 is incorrect—a confusion of dates—and refers to those noted above.

185. *H. PELTIGERA*. Bordered Straw.—Selby took a specimen near Bamburgh in 1854, but I know of no other record for the district; although it is just another of those strong-winged, wandering moths liable to be met with almost anywhere. Robson mentions its occurrence in County Durham on four occasions in the 'seventies.

186. *HELIODES ARBUTI*. Small Yellow-underwing. — Restricted in distribution, but not uncommon in several of its Northumbrian localities, where I have taken it at Kyloe; Craggside, Rothbury; in Redewater; and near the east end of Greenlee Lough.

Round Galashiels Shaw marked it as "scarce" in 1904; and our only other record from the Scotch side of the Border is Threeburnford, Berwickshire, whence Renton sent me speci-

mens in 1883, he having first discovered it there six years previously.

[*ERASTRIA FUSCULA*. Marbled White-spot.—Robert Renton, in 1881, persisted that this very southerly species occurred upon Gordon Moss, Berwickshire, and I certainly thought we saw it there on one visit of investigation, but without a specimen it cannot be included here except in this *ad interim* sort of way.]

187. *BRYOPHILA PERLA*. Marbled Beauty.—Appears to be local in its distribution with us, but is, perhaps, often overlooked. Be that as it may, it is widely distributed, and often common enough where it does occur. The moth may be found closely adpressed to rocks or walls, often curiously conspicuous where the stone happens not to coincide with the pale grey colouring of its wings; and in similar situations the blister-like dwellings of the larvæ will be found if carefully looked for. In my volume on *Wild Life in Wales* (p. 77) will be found an account of the destruction of the larvæ by tits and a Great Spotted Woodpecker. The Great Tit therein referred to was watched at his work on a little colony of the larvæ on the old town-walls against the large stank at Berwick.

Elsewhere in Northumberland the moth is equally common, at Ancroft, Haggerston, Wooler, and Alnwick, and has likewise been noticed at Newbiggin-by-the-Sea, Hexham, and about Newcastle. In 1888 I found it not uncommon on the whinstone rock on which Holy Island Castle stands, and used to see it, and its larvæ, there for many years afterwards. At Alston I first noticed it in 1914.

In Berwickshire, it is numerous enough on the sandstone cliffs below Lamberton, at Eyemouth, and Ayton. In Roxburghshire, it is reported from Hawick, Ancrum, and Kelso; and as abundant at Galashiels. Further afield it occurs at Longniddry, Aberlady, and Arthur's Seat (William Evans), and at Peebles.

188. *PHYTOMETRA ÆNEA*. Small Purple-barred.—Has been found in many widely scattered parts of the district, in some of them fairly commonly, but nowhere, apparently, very abundantly.

For Northumberland, I have taken it at Cragside, Rothbury

(rather commonly), above Greenlee Lough, and Sidwood (where Mr W. G. Watson reports it to be numerous) ; while it is referred to by Robson as general in the Morpeth district, and at Jesmond. About Alston it is well distributed and far from rare.

In Berwickshire, it has been recorded from Drakemire Moor and Preston ; and from Roxburghshire as, locally, on the moors around Hawick.

189. *ANARTA MYRTILLI*. Beautiful Yellow Underwing. — Abundant on most of the moorlands throughout the district.

190. *SARROTHRIPA REVAYANA*. This was included among the *Tortrices* in our old lists, and as very few of our collectors could ever be induced to take much interest in “ Micros,” *S. revayana* may have been overlooked, or disregarded.

Be that as it may, we have no more than two records known to me.

One in my own collection I took on one of the old oak-trees in Fenwick Wood, Northumberland, on 17th May 1896, and it is perhaps no credit to the entomologist that his journal contains the legend, “ I think others were seen but disregarded owing to more pressing matters.” Still worse, I have reason to believe that others may have been passed over even earlier than that !

The other is by Mr W. Renton, from Roxburghshire, “ a single hibernated specimen near Kirkton School, Teviotdale, April 1901.”

It is a species that is almost sure to reward careful looking for on the part of our younger lepidopterists.

191. *GONOPTERA LIBATRIX*. Herald Moth.—Common in most parts of the district and widely distributed over the whole.

The velvety-green caterpillars may be easily found on the outer shoots of saughs and willows. They commonly spin together, very slightly, two or three of the terminal leaves of the shoot, and pupate there, their frail hammocks becoming then even more conspicuous than were the larvæ, owing to the fact that such spun-together leaves (whether forming cocoons for this or other insects) usually retain their position upon the bough long after all their neighbours have fallen. The Herald's hammock is a very flimsy affair, so open at the top that if the

branch is much deflected, by wind or otherwise, the enclosed pupa is apt to slip out and drop to the ground. Very frequently it falls a prey to earwigs, two or three of which may often be found hiding in the cocoon beside the empty shell of their victim.

The caterpillars are usually full-fed with us about August, and the moths emerge, at considerable intervals, up to the end of October. They then become frequent occupiers of outhouses, old buildings, mine-shafts, and even natural caves, in which the winter is passed. They are always more common at sugar, or at light, on fine nights in spring than in autumn.

192. CATOCALA FRAXINI. Clifden Beauty.—We have four records of the occurrence of this rare immigrant in our district. They are: For Northumberland, one was taken on the lawn at Twizell House by the eldest daughter of P. J. Selby on 14th August 1842. A second at sugar in the Vicarage garden at Scremerston by Dr A. H. Evans in August 1876. For Berwickshire, William Shaw took one, also at sugar, near Netherbyres, Eyemouth, about 9th September 1876; and for Roxburghshire, one is recorded by Mr W. Renton as found alive by John Turnbull in the vicinity of Hawick on 11th August 1898.

193. C. NUPTA. Red Underwing.—Another striking insect with which we can lay claim to no more than a casual acquaintance in the north.

For Northumberland, two were taken, about the same time but on different nights, by a man then living at Lucker about 1885 or 1886. They were found at rest on some large willow-trees by the side of the Lucker Burn. I did not see them, but Mr John Bruce did and assured me that there could be no mistake about their identity.

For Berwickshire, one was taken in a garden in Duns by Alex. Cunningham in 1875; * one at sugar on the sea-banks at Burnmouth by William Shaw at the end of August 1876; and one at Earlston shooting-range a few years prior to 1880.† Barrett (vol. vi, p. 256) refers to “a rather doubtful record in Berwickshire.” There is nothing to show whether it was one of the

* James Hardy, *Hist. B.N.C.*, vol. vii, p. 519.

† Andrew Kelly, *ibid.*, ix, p. 386.

above of which he wrote, but I should doubt it. I can personally vouch for Shaw's capture, having seen the specimen and heard all about it at the time. Of the others I knew little respecting the insects but a good deal of their sponsors, and the references are given so that anyone feeling himself qualified to dispute them may have the opportunity of doing so if he chooses.

194. *EUCLIDIA GLYPHICA*. Burnet Noctua.—Appears to be rather restricted, or local, in distribution, but is fairly common in many places on both sides of the Border.

In Northumberland, I have found it, generally in considerable numbers, at Swinhoe Woods near Chathill, Houxty, Greenlee, and Minsteracres. Selby included it in his Twizell list; and Robson, quoting Finlay, gives it as generally distributed and not very uncommon in the Morpeth district.

In Berwickshire, it is pretty common along the sea-banks, Lamberton to Burnmouth, Eyemouth, and westward to St Abbs; while Renton got it at Fans.

For Roxburghshire, it is not so common in the Hawick district as it is about Galashiels. It may be worth a passing reference to recall that in 1847 Archibald Hepburn recorded it as "common Whittingham, E. Lothian; new to Scotland." *

195. *E. MI.* Mother Shipton.—Distributed all over the district in favourable places and common in many of them. Affects rough pastures and moor edges, the larvæ appearing to feed more upon grasses than clovers with us.

It was recorded by Archibald Hepburn as pretty common at Whittingham, East Lothian, so long ago as 1847.*

196. *AVENTIA FLEXULA*.—This and some of the following species, being classed amongst the "Micros" in our old lists, were almost totally disregarded by our old collectors, and information concerning them, locally, is very scanty.

The only occurrence of *A. flexula* in the district, known to me, was that I took a specimen in Trickley Wood, near Chillingham, Northumberland, in July 1889.

197. *HERMINIA BARBALIS*.—Robson referred to a record from

* *Hist. B.N.C.*, vol. ii, p. 212.

Corbridge, Northumberland, by Mr Patterson, but knew of no others ; nor do I.

198. *H. TARSIPENNALIS*.—I took this at Belshill in 1902 ; and Mr W. G. Watson was finding it rather commonly at Sidwood, North Tyne, when I looked over his cabinet in 1920. Both localities are in Northumberland.

199. *H. GRISEALIS*.—Probably well distributed and not rare over Northumberland, whence there are records from the neighbourhood of Newcastle and Morpeth (Robson). In 1898 I found it at Chillingham.

200. *HYPENODES COSTÆSTRIGALIS*.—Mr W. Renton records that he gets "a few annually" in Roxburghshire (*Entomologist*, 1903).

201. *SCHRANKIA TURFOSALIS*.—I took it near Otterburn, Northumberland, in 1898.

202. *HYPENA ROSTRALIS*.—I know nothing of this except the record mentioned by Barrett—"for Scotland only one in the extreme south, in the Tweed district."

203. *H. PROBOSCIDALIS*. The Snout.—Throughout the district, abundant wherever nettles grow—and where do they not ?

204. *RIVULA SERICEALIS*. Straw Dot.—I got this in Trickley Wood, Northumberland, in July 1889.

It has occurred both in Durham and Cumberland.

205. *BREPPOS PARTHENIAS*. Orange Underwing. — This pretty moth was discovered in the Chopwell Woods in May 1907, and again in 1923, where my friend Mr Peter Charlton again took it on 28th April 1924. These woods are in County Durham, but so close to the Northumbrian march that little excuse is needed for this reference to the occurrence here. It is over fifty years since it was first discovered in Durham, and Professor Heslop Harrison tells me that it has within recent years been found in several other places in that county, some of them not

much to the south of the Tyne, and in some of them fairly commonly.

It is an insect that ought not to be easily overlooked, but with the above experience before us (in County Durham where entomologists have always been in much greater evidence than in Northumberland) it seems highly probable that it will before long be discovered in that county. It has occurred also about Carlisle, Brampton, and other places in Cumberland, as well as in Scotland, and ought to be looked out for on the bosky mosses of the Borders. It flies in the sun, early in the year (March and April), and is addicted to birch woods.

It was included in an old MS. list of Selby, of insects taken at Twizell, drawn up apparently in 1855, but was marked with a " ? ".

GEOMETRINA.

1. OURAPTERYX SAMBUCATA. Swallow-tail.—Is not uncommon in certain parts of south Northumberland, but does not seem to penetrate northwards beyond the watershed of the Wansbeck, on the east side of Britain.

It is, or used to be, not uncommon about Newcastle, and at various points up Tyneside. At Stocksfield I have seen it, in considerable numbers, in the garden of Mr J. S. T. Walton within recent years, as well as in the vicinity of Minsteracres, and, doubtless, it may be found at other places in that neighbourhood. There is an old record in Stephens' *Illustrations of British Entomology* that it occurred at Meldon Park, Morpeth, in 1829, but Robson tells us that his correspondent, Finlay, who so long resided there, never met with it. It is, however, not rare about Bolam and Wallington; further than which I have no note of it.

2. RUMIA CRATÆGATA. Brimstone Moth.—A universally common species.

3. CABERA PUSARIA. White Wave.—Another very common moth all over our district, its variety *rotundaria* being in many places almost as frequent as the type.

4. C. EXANTHEMARIA. Common Wave.—Perhaps slightly less

abundant than the last in certain places, but common all over the district.

5. *MACARIA LITURATA*. Tawny-barred Angle.—Well distributed, generally present in small numbers, in suitable woods, at the right time of year, but is rather difficult to catch, whereby collections seldom contain a very long series. Nevertheless, it cannot be called rare over the greater part of the district, and may confidently be looked for in many places. It has come to the light of our windows at Alston.

Localities are—For Northumberland: Twizell, Adderstone, Chillingham, Kyloe, Pallinsburn, Houxty, Hexham, Whitfield, Stocksfield, Dipton, and Muckle Moss. For Berwickshire: Ayton, Pease Dean, Coldingham, Gordon Moss, and Preston near Duns. For Roxburghshire: Hawick, Jedburgh, and Stichill, near Kelso. At Galashiels Shaw called it common.

6. *HALIA WAVARIA*. Garden V.—Common and distributed all over the district; especially addicted to gardens. Comes freely to light.

7. *PANAGRA PETRARIA*. Brown Silver-line.—Well distributed over Northumberland, although it has not been recorded from many places. William Evans got it in the Forth area, but there are no records for the Scotch Border counties known to me.

It was included in Selby's list for Twizell; seems to be not very rare at Kyloe, and I have taken it also at Houxty and Garret Hot Wood on North Tyne. Mr Howard Walton has shown me specimens from Stocksfield and Slaley.

8. *STRENIA CLATHRATA*. Latticed Heath.—Very local, but well distributed, and plentiful in some places.

For Northumberland, I took it at Swinhoe, near Chathill, in July 1900, and have also met with it near Greenlee Lough, Houxty, and, in abundance, at Hallington Reservoir. Robson refers to it near Cambo, Bardon Mill, Bellingham, and near Newcastle.

In Berwickshire, Shaw reported it from Lauder in 1902, but knew it from no other station in that county.

In Roxburghshire, Kelly recorded it as "in great profusion

on the railway between Hawick and Hassendean," in 1873 ; Mr Grant Guthrie referred to it as "once common" in the same locality some twenty years later ; and Adam Elliot found it not uncommonly in the Jedburgh district.

9. *FIDONIA ATOMARIA*. Common Heath.—An abundant moorland species all over the district.

10. *F. PINIARIA*. Bordered White.—In wellnigh as great profusion as the last in all parts of the district where old fir-woods occur.

11. *F. PINETARIA*. Rannoch Geometer.—Our only record of this species in the district is that referred to by Robson—taken on Muckle Moss, near Haydon Bridge, Northumberland, as set out in the *Transactions Tyneside Naturalists' Field Club*, vol. v, p. 9.

It is a Highland moth, whose larva feeds upon blaeberry ; but, since Barrett wrote, it has been recorded from several southern areas besides that above referred to. On the wing in June and July.

[*F. CARBONARIA* was included in the *Fauna of Twizell*, but probably in error. The specimen no longer exists, but the species is only known in the British Isles from the mountains of Perthshire, and all the alleged English records have proved to be cases of misidentification.]

12. *NUMERIA PULVERARIA*. Barred Umber.—Selby got this at Twizell, and there is Wailes' old record for Meldon Park, Morpeth,* but these are our only Northumbrian records, and there are none known to me for any other part of the district.

Robson gave several Durham localities, but thought it might be dying out in that county. It occurs about Carlisle and elsewhere in Cumberland.

13. *SCODIONA BELGIARIA*. Grey Scalloped Bar.—Well distributed over our moorlands, but always scarce and looked upon as a prize.

For Northumberland, Wailes recorded it from Prestwick Car,*

* Stephens, *Illustrations Brit. Entomology*, vol. iii, p. 195.

and Finlay regarded it as "not uncommon on the Northumberland Moors" (Robson). Mr Bruce got it at Adderstone Hall in 1888, and I have taken single specimens at Alwinton in 1893, Fowberry Moor in 1898, and Heatherington Moss just twenty years later. Mr Watson has found it fairly frequently about Sidwood.

Berwickshire localities are : Cockburn Law and Lauder (Kelly), Hoardweil (John Anderson), and Greenlaw (Patterson).

In Roxburghshire, Adam Elliot found it scattered over the moorlands of the Jedburgh neighbourhood, and Mr Grant Guthrie about Hawick.

Round Galashiels Shaw looked upon it as "scarce" in 1904.

14. *ASPILATES STRIGILLARIA*. Grass Wave.—Is reputed to be common, locally, in Cumberland, but has not been noticed anywhere in our district, except that Adam Elliot found it in the neighbourhood of Jedburgh, Roxburghshire, "in one locality only so far as I know, and there not too plentiful."

15. *EURYMENE DOLOBRARIA*. Scorch-wing.—We have no more than two records for the whole district, each of single specimens only, though so widely separated as to give cause for wonder that other collectors should never have noticed so striking an insect.

Finlay took one moth in Meldon Park, Northumberland (Robson); and Mr W. Grant Guthrie another at Goldielands, Hawick, Roxburghshire, some time prior to 1895. It is not looked upon as so very uncommon no further away than Carlisle and a few other places in Cumberland.

16. *ODONTOPTERA BIDENTATA*. Scalloped Hazel.—Generally common throughout the district.

The moths vary a little in the shade of their brownness, the caterpillars very greatly both in colour and markings as well as in form, some of them being angulated so as to give a distinct idea of squareness to their bodies, others nearly cylindrical. Their common colour is darkish brown, but often they present a mixture of greys, blacks, and greens, producing a very lichen-like effect; and, curiously enough, these grey larvæ seem more generally to feed upon green leaves than upon grey lichens. No doubt they may then more or less resemble lichen-covered twigs,

but they are often so conspicuous on smooth and uniformly coloured branches as to force the conviction that a beautifully designed "colour protection" pattern has been thrown away, or conferred upon a creature that lacks, or has lost, any idea of how to use it to advantage.

Some of the larvæ, again, are conspicuously annulated, alternate segments being dark or light coloured, producing a not unpleasing but curiously patchwork and kenspeckle effect.

17. *ENNOMOS ALNIARIA*. Canary-shouldered Thorn.—Local, and generally considered rare, but well distributed over the district. Its usual time of flight seems to be just after sunset, but it is easily disturbed from its hiding-place in the foliage of allers (*Alnus glutinosa*), and may often be seen on the wing on an afternoon in September and October; rarely I have seen it towards the end of August.

In the South Tyne valley, from Alston to Featherstone Castle (and probably much further), it is comparatively common. I took one on the wing at Kyloe, and another at Alnwick, in September 1885; one at Scremerston in the following year; and have seen it at Houxty on several occasions since 1923, when the first specimen was secured there. Mr J. R. Johnson has taken it, within recent years, on Prestwick Car; but besides these, the only Northumbrian records known to me are those mentioned by Robson—at Dinnington and Jesmond, near Newcastle.

For Berwickshire, the only published record is a capture at Duns in 1874 (Kelly).

For Roxburghshire, there is only Adam Elliot's commentary, "in the lower and more sheltered localities"; and a specimen taken at Twirlies, near Hawick, by Mr Grant Guthrie, some time prior to 1895.

18. *E. FUSCANTARIA*. Dusky Thorn.—No Border records, and only two for Northumberland; that mentioned by Robson, a single example taken at Jesmond, Newcastle, by Mr Henderson; and one reared in October 1921 by Mr W. G. Watson from a larva found at Sidwood.

It should be looked for in August and September. The larva feeds upon ash.

19. *E. EROSARIA*. September Thorn.—Rare, or has been little observed. Except for its paler colour it bears considerable resemblance to the last. On the wing towards the end of September; larvæ “on oak, sometimes on beech, birch, and lime” (Barrett).

I took a specimen at Houxty, North Tyne, in September 1918, and have several times seen the moth there since, our only actual record for Northumberland; but in the previous year I had taken one at Howgill Rigg, on the Cumberland side of Gilderdale Burn, which there forms the march between the two counties; and in September 1913 had one brought to me by the Rev. H. E. Stancliffe, who had beaten it out of a bush at Garrigill a few miles further up the South Tyne. It had previously been recorded for the other side of the Pennines by my friend Mr H. Britten, and has occurred on at least two occasions in County Durham, one of them being at Thornley, only some three miles south of the Tyne (Robson).

For Berwickshire, it has been reported from Lauderdale, but the only undoubted locality is Preston, near Duns, where John Anderson got one in 1873, but a good many in after years, chiefly attracted to the gas-lamps, with one of which he was kind enough to enrich my own collection.

For Roxburghshire there seem to be no records.

20. *E. ANGULARIA*. August Thorn.—One of the most variable of the Thorns, not rare in southern England, and has occurred in several places in Scotland. Has been recorded from the Durham side of Tyne, but the only locality known to me for our district is Sidwood, Northumberland, where Mr W. G. Watson reports having found it “not uncommonly” in 1915, and again took it in 1919.

21. *CROCALLIS ELINGUARIA*. Scalloped Oak.—Well distributed all over the district and, though never very numerous, common enough in most places to make the specifying of localities superfluous. August is the usual month for the moth's appearance, but I have seen it on wing as late as 20th September. William Evans recorded it from the lighthouse on St Abb's Head, 29th August 1913. The usually palish band over the fore-wings is sometimes fairly dark and at others almost wanting.

22. *HIMERA PENNARIA*. Feathered Thorn. — Much less common than the last, but still very well distributed over the district, and has been taken in some numbers in several places by working the gas-lamps in September and October.

Localities—For Northumberland: Twizell, Kyloe, Haggerston, Norham, Houxty (not uncommon), Morpeth, Stocksfield, and about Newcastle. In the South Tyne valley, from Alston downwards, it is not uncommon in certain seasons, flying in headlong manner just after sunset.

For Berwickshire: Ayton, Eyemouth, Coldingham, Duns, and Lauder.

For Roxburghshire: the only published record I find is Elliot's from Jedwater, but should think it almost certain to occur elsewhere.

About Galashiels Shaw marked it as "scarce" in 1904.

23. *SELENIA ILLUSTRARIA*. Purple Thorn.—Our only record of this known to me is that by Professor Heslop Harrison, who beat a single larva from alder at Ninebanks, West Allendale, Northumberland, on 13th August 1917.* He had discovered it by similar means in County Durham a few years earlier,† and the moth has occurred, though rarely, in Cumberland.

24. *S. LUNARIA*. Lunar Thorn.—Not at all common with us, though it has been taken, sparingly, over a considerable portion of the district. Some of those at Alston are particularly rich in colouring. On the wing in May and June.

Localities — For Northumberland: Berwick, New-water Haugh, Kyloe, Houxty, Sidwood, Ninebanks, Prestwick Car; Meldon Park, near Morpeth, and Jesmond, Newcastle (Robson).

For Berwickshire: Ayton, Eyemouth, Pease Dean, Lauderdale, and Preston.

For Roxburghshire: Mr Grant Guthrie's seems to be the only published record, and he found it "not very common; Colliers, Whitlaw, and Hallrule," all in the Hawick neighbourhood.

In the Galashiels district Shaw considered it "scarce" in 1904.

25. *S. ILLUNARIA* (*BILUNARIA*). Early Thorn.—Well distri-

* *Vasculum*, vol. iii, p. 94.

† *Entomologist*, 1911, p. 413.

buted over the district and fairly common in most places, making it unnecessary to specify localities. The imago appears with us, for the most part, about the middle of May, occasionally a month earlier, and sometimes in June; these representing the "spring brood"; of the autumn emergence we seldom have any evidence. It is a hardy species and seems to remain upon the wing all night. On many an "unfavourable night" for moths, when nothing was doing at the sugar patches, I have found scarcely anything astir in the woods except *illunaria* and *Odontoptera bidentata*, and both these have continued flitting about until the beginning of a new morn was well advanced. But to see *illunaria* really in force, one must go to the scrubby woods of Lapland; where the summer's night is practically as light as day, and where I have seen it on the wing in June in numbers such as we never behold at home.

26. *PERICALLIA SYRINGARIA*. Lilac Beauty.—Of this species I have no personal knowledge. It does not seem to reach the Borders, and the only published instance of its capture in Northumberland known to me is that mentioned by Robson—"one taken in Meldon Park, Morpeth, by Mr Finlay."

Robson also gave but a single Durham occurrence, "at Thornley on 15th July 1876, by Mr Hedworth," that place being only about three miles south of the Tyne; but it has since been found in several other localities in that county, including the Derwent Valley where Mr G. Nicholson has taken it. It occurs, rarely, in Cumberland.

27. *EPIONE APICIARIA*. Bordered Beauty.—We have few localities for this, but they are widely separated, and in some of them the species is not infrequent.

For Northumberland, I first took it on 18th August 1883 at Allerdean Mill, a few miles south of Berwick, and afterwards found it to be not uncommon there. In 1895 I took it at Newham Bog, where it was also noticed on several occasions subsequently; on 7th September 1914 I took one on the wing at Kirkhaugh, South Tyne; and on 27th July 1917 one at Houxty. Robson records it as found "not uncommon" by Finlay in Coal Law Wood, Morpeth, and "sparingly" at Stocksfield, as well as occurring at Jesmond and elsewhere in the Newcastle district.

At Alston one came to the light of our window on 2nd September 1927. It is found, though not commonly, in County Durham, as well as in Cumberland.

In Berwickshire, it has not yet been noticed; and the only record for Roxburghshire is to the credit of Mr Grant Guthrie, who, writing in 1895 on Lepidoptera of the Hawick district, says of this species, "Very local; Humbleknowes Bridge, 28th August and 12th September."

It has also been found in the Galashiels neighbourhood (Shaw, 1904).

28. *E. VESPERTARIA*. Dark Bordered Beauty.—Very local, but, as indicated below, its known stations are widely dispersed over the district.

It was first recorded for Northumberland in his address as President of the Club by John Turnbull in 1863, who reported that at the meeting at Cornhill on 30th July that year Mr Lamb had captured two specimens in Learmonth Bog (since then drained away).

Its next appearance was at Newham Bog on 29th August 1890, when a rather worn female fell to my net. Six males were taken there on 15th August 1898, by Mr Ivor Evans; and another on 6th August 1925, on the occasion of the Club's meeting there. At the end of July 1918 I took a single specimen near Houxty.

It has been reported from the neighbourhoods of both Hawick and Galashiels, but is at least not common at either station.

Barrett's comment on the Newham captures as belonging to "a smaller race" (*Lepidoptera of British Islands*, vol. vii, p. 111), apparently attributed to me, was not made on my authority, and must have been a slip.

29. *METROCAMPA MARGARITATA*. Light Emerald.—Common throughout the district.

30. *ELLOPIA FASCIARIA*. Barred Red.—Well distributed over the district, and fairly common in many places, but not abundant. I have most frequently met with it on the wing in August.

Localities are—For Northumberland: Twizell, Haggerston, Kylee, Chillingham, Langleyford, Beanley, Houxty, Sidwood,

Barhaugh, and Langley; Meldon Park, Dipton Wood, and Stocksfield.

For Berwickshire: Paxton House, Ayton, Eyemouth, Col-dingham, and Gordon Moss.

For Roxburghshire, the only published record I find is Adam Elliot's for the Jedwater district, but I have little doubt that it occurs elsewhere; I have seen it near Yetholm. About Galashiels Shaw marked it as fairly common in 1904.

31. *BISTON BETULARIA*. Pepper and Salt.—Widely distributed over the district, but nowhere very common. The black form has been found in south Northumberland, but not, so far as I know, in the north. Amongst localities may be mentioned:

For Northumberland: Muckle Moss, Dipton, Stocksfield, Sidwood, Houxty, and the Tyne valley generally; Alnmouth, Alnwick, Warkworth, Bothal, Morpeth, Twizell, Newham Bog, Kyle, and Norham.

For Berwickshire: Eyemouth, Duns (whence Mr J. Ferguson once sent me a caterpillar that he had found in his garden feeding upon the pulp of an apple, which fed up on the fruit and duly produced the moth with me), Paxton, and Foulden.

For Roxburghshire: Jedwater, Hawick, and Yetholm.

About Galashiels Shaw considered it "scarce" in 1904.

32. *PHIGALIA PILOSARIA*. Pale Brindled Beauty.—Well distributed over the district and generally not uncommon, though its early appearance (commonly in February) often causes it to be overlooked. The female, being entirely apterous, is even more apt to be passed over. I have never seen a melanic specimen in the north, but in the Tyne valley Professor Heslop Harrison considers them not rare. Most of our Border specimens are rather on the pale side. A few localities may, perhaps, be usefully given.

For Northumberland: Jesmond and the neighbourhood of Newcastle, Corbridge, Hexham, Houxty, Morpeth, Netherton, Alnwick, Newham Bog, Kyle, Twizell, and Horncliffe.

For Berwickshire: Eyemouth, Pease Dean, St Abb's Light-house (25th March 1914, William Evans), Paxton, Duns, Hoard-weil, and Fans.

For Roxburghshire, Mr Grant Guthrie found it commonly in

the Hawick neighbourhood; and Kelso. In the Galashiels district Shaw found it "common."

[*NYSSIA HISPIDARIA* has not, so far as known to me, been recorded from actually within our boundaries, but it has been found so near the southern march of Northumberland as to justify this passing reference—Chopwell, Gibside, etc., in County Durham, Carlisle, Lazonby, etc., in Cumberland.]

33. *GNOPHOS OBSCURATA*. The Annulet.—This is chiefly a seaside frequenter, and the station where the writer has been most familiar with it is on Berwick Pier! There, and about the lighthouse-keeper's garden and adjoining banks, it often swarms from July to the beginning of September.

It is plentiful along the coast, in suitable places, in both directions from Tynninghame to Tynemouth, and has occurred inland at Gordon, Duns, and Preston in Berwickshire, and Meldon Park in Northumberland.

About Berwick the prevalent form is rather palish, but dark specimens resembling fig. *h* on Barrett's pl. cccv have occurred, some others prettily zoned and of a more or less yellowish tint being also taken.

34. *CLEORA LICHENARIA*. Brussels Lace.—Apparently restricted in distribution, but not uncommon in a good many places, especially on the Scotch side of the Border.

In Northumberland, we have taken it at Allerdean Mill, Ancroft, and Kyloe, while it was recorded from Tuggal Hall by Bold in 1871.

In Roxburghshire, I have taken it on the wing at night, rather commonly, on the moss west of Hoselaw Loch; Elliot found it moderately common in the Jedburgh neighbourhood, as did Mr Grant Guthrie about Hawick, on Ruberslaw, etc.

In Berwickshire, in favoured localities, it is as numerous; Eyemouth, Pease Dean, Preston, Paxton, Foulden, and doubtless elsewhere.

At Galashiels, on the contrary, it is looked upon as scarce.

The ground-colour of all the local specimens of this moth that I have seen has been grey or greenish-grey, not brown, and the wings much more variegated by ill-defined waving lines than

shown in Barrett's figures ; Newman's figure (p. 63), although uncoloured, gives a much better representation of our moths.

35. C. GLABRARIA. Dotted Carpet.—As yet only recorded from Roxburghshire in our district, where it was discovered near Malcolm's Moss, Minto, by Mr Grant Guthrie in August 1882 ; and by Adam Elliot, Caverton, in July 1900. Barrett figures one from the last-named station at 2*b* on pl. cccv of his work.

In the genus *Tephrosia* opinions have long been sharply divided as to whether the Engrailed and the Small Engrailed constitute two good species or are merely forms or races of one. In the north we have always regarded them as distinct, but Barrett united them and has stated his reasons for doing so at some length (*Lepidoptera of the British Islands*, vol. vii, pp. 179–181). Robson followed him, though not without qualms (*Catalogue*, vol. i, pp. 212–3) ; but a great deal of intensive biological work has been carried out amongst the lepidoptera since they wrote (in 1900 and 1902), and by no one more ably, or more elaborately, than by my friend Professor J. W. Heslop Harrison. It is neither possible nor necessary to enter into details here, but two points, stressed by Harrison, may be quoted : “ *Bistortata* has an egg twice the size of *crepuscularia* and differing from it in colour ; while if you hybridise *bistortata* male with *crepuscularia* female you get both sexes in equal numbers in the progeny, but the reciprocal cross, *crepuscularia* male and *bistortata* female, yields males only.” The old view that the two insects are specifically distinct seems to be clearly established, and I must therefore depart, in this instance, from Barrett's arrangement. There has been a good deal of confusion amongst the scientific names used by different authors, and *T. biundularia*, Esp. now becomes a synonym of *T. crepuscularia*, Hüb., leaving us with :

36. TEPHROSIA CREPUSCULARIA, Hüb. The Small Engrailed of Newman (*T. laricaria* of Stainton's *Manual*).—A rare insect in Northumberland, which does not appear to reach beyond the Border, and of whose capture within the district we have only the following instances :—

On 17th May 1896 I found two examples at rest upon a low wall bordering the old road leading along the east side of Kylvie Wood ; and another, much worn, on the trunk of a Scotch fir, near the west side of the same wood, on the 14th of the following month ; but diligent search then or in subsequent years failed to discover any more.

Professor Heslop Harrison reports that a casual specimen has been taken at Whittledene, some twenty miles west of Newcastle, our only other locality for the county ; and that he knows of only odd examples being found in County Durham, one of them at Chopwell, which is just beyond the Northumberland boundary.

On 4th July 1915 I took a single, rather worn specimen at Natrassgill, about a mile above Alston.

So far as known to me no melanistic varieties of either this or the next species have occurred in Northumberland.

37. *T. BISTORTATA*, Goeze. The Engrailed of Newman.—Much less uncommon than the last in southern Northumberland, but has only once been detected in the north of that county, and not at all in our area on the Scotch side of the Border.

I found it at Allerdean Mill, a few miles south of Berwick, in 1897 ; and in July 1915 took a single specimen at Houxy on the North Tyne.

Professor Heslop Harrison informs me that he has gone over all the local specimens in the Robson and Gardner collections and finds them, with few exceptions, to belong to this species ; while his checking of many hundreds of other specimens from Corbridge, Riding Mill, and other stations on both sides of the Tyne have produced like results. All, save the Whittledene specimen, are *bistortata*, and to that species practically all Robson's records must be referred.

The Professor further remarks that "*T. bistortata* pigments are water-soluble, so that old specimens are pale in the ground-colour with brown markings. In our counties the date of capture signifies nothing, as both this species and *crepuscularia* are single-brooded. Of the two species of Engrailed, one alone, *bistortata*, occurs in North America, but both in Europe. I have had and have bred *bistortata* from Perth, Elgin, and Nairn, but, curiously enough, although *crepuscularia* does not, apparently,

get further north than Northumberland in this country, it has much the wider distribution on the Continent."

38. *T. PUNCTULARIA*. Grey Birch.—I know nothing of this in our district except what Robson gives—"Recorded in Stephens' *Illustrations* (vol. iii, p. 193). 'Newcastle, Meldon Park, etc., G. Wailes, Esq.' Mr Finlay never met with it in Meldon Park, but took it regularly, though sparingly, in Coal Law Wood."

39. *BOARMIA CONSORTARIA*. Pale Oak Beauty.—Very rare, and only known from Northumberland in our district.

I took a single specimen off a tree trunk at Belshill near Belford on 13th July 1904, the first record for the county. Professor Heslop Harrison recorded one from Hexham in the *Vasculum* for 1924, vol. ix, p. 127.

40. *B. REPANDATA*. Mottled Beauty.—Well distributed all over the district, and very common in most places.

41. *B. RHOMBOIDARIA*. Willow Beauty.—Much scarcer than the last, and much more local, but common in some places.

Localities are—For Northumberland: Kyloe, Chillingham, Beapley, Houxy, Sidwood, Lintley on South Tyne, Corbridge, etc. In over-reading this, Professor Heslop Harrison remarks—"This is a very common species on Tyneside, especially in the towns. It swarms in the Hancock Museum grounds, Newcastle."

For Berwickshire, the only published record I find is Renton's from Fans, or Gordon, and I have no note of having met with it in that county.

In Roxburghshire, Elliot found it moderately common in the Jedburgh district, as did Mr Grant Guthrie about Hawick.

42. *HYBERNIA AURANTIARIA*. Scarce UMBER.—Widely, but very partially distributed over the district, and generally looked upon as "a good thing" by collectors. A marked feature in its economy is that while it may be found in some numbers in some particular place one season it may perhaps be looked for there in vain for years afterwards. I have sometimes wondered

how far this may be due to the sluggish character of the male ? He is as often as not found amongst dead leaves upon the ground, or clinging to a branch, and in certain seasons is scarcely to be seen upon the wing at all. Undoubtedly the easiest way to obtain it is by collecting the larvæ, or the pupæ, the former on birch, willows, and a variety of other trees, in May and June, the latter on the ground spun-up under leaves or moss.

Localities are — For Northumberland : Twizell (Selby), Waren, Trickle, Allerdale Mill, Beanley, Houghton, Sidwell, and Kirkhaugh ; Netherwitton, Morpeth, and in the neighbourhood of Newcastle.

In Berwickshire, it appears to be rarer, but has occurred sparingly at Ayton, Eyemouth, Preston, and Abbey St Bathans.

For Roxburghshire, it does not seem to have been recorded except by Adam Elliot, who found it in the Jedburgh district "rather more frequent than *defoliaria*."

About Galashiels it is "scarce," but a very fine, almost red, variety occurs there.

43. H. DEFOLIARIA. Mottled Umber.—Generally distributed over the district, and common enough in most places, though looked upon as "scarce," or even "rare" in others ; but the appearance of the moth in mid-winter (most commonly in November with us), when few observers are afoot, may, in part at least, explain such divergence of opinion. The caterpillars are universally in evidence during summer, though I have never known them to appear in the guise of anything like a "plague" in our district. They may be found on almost anything, even on blaeberry (*Vaccinium Myrtillus*) and heather (*Calluna vulgaris*) at times.

William Evans had the moth sent to him from some of our lighthouses ; in November 1919 Admiral Lynes brought me one to name which he had caught on the top of Darden Pike. I have seen it above Alston up to very nearly the 2000-feet contour-line.

44. H. PROGEMMARIA. Dotted Border.—About as common as the last and as generally distributed.

45. H. LEUCOPHÆARIA. Spring Usher.—Much less frequent

than either of the two last, but still well distributed over all the district. A few localities may be mentioned :

Northumberland : Twizell, Belshill, Haggerston, Wooler ; Netherwitton, and about Newcastle, but not commonly ; Houxty, Stocksfield, Featherstone, and Whitfield.

Berwickshire (generally regarded as rare or uncommon) : Pease Dean, Duns, and Ladykirk.

In Roxburghshire, Elliot, from the Jedburgh district, seems to be the only person who has recorded it. William B. Boyd took one at Cherrytrees many years ago. At Galashiels it is common.

46. *H. RUPICAPRARIA*. Early Moth.—Abundant in most places, and widely spread over the district. The most common of the genus on the Scotch side of the Border.

47. *ANISOPTERYX ÆSCULARIA*. March Moth.—Distributed over the entire district, but nowhere, I think, entitled to be regarded as more than uncommon.

Localities are—For Northumberland : Longridge, Haggerston, Waren, Lilburn, Houxty, and Hexham ; and Meldon Park, Morpeth.

For Berwickshire : Eyemouth, Ayton, Pease Dean, Preston, and Cumberland Bower near Berwick. Evans had it sent to him from St Abb's Lighthouse.

For Roxburghshire : Hawick, Jedburgh, and Kelso.

About Galashiels it seems to be scarce.

48. *ABRAXAS GROSSULARIATA*. Magpie Moth. — Common everywhere, so well known as to call for no remark. I have seen some very fine varieties of the moth at Galashiels, a neighbourhood that seems to be specially conducive to variation.

49. *A. ULMATA*. Clouded Magpie. — Locally sometimes numerous, but very partially distributed.

In Northumberland, it is found, here and there, over a considerable portion of the southern half, but is unknown in the north of the county. It has been known round Newcastle and Morpeth since Hewitson's day, about 100 years ago, and still occurs there, sometimes fairly commonly. I took a specimen

at Ray in June 1897, the only one that chanced to be seen (I was not on entomology bent), but even a single individual should postulate a settlement of some kind? And I have seen it, very sparingly, at Houxy and Stocksfield, but have no personal knowledge of it anywhere else in our district, although not far southward of our confines, at Naworth Castle and in County Durham, it is common enough.

In Berwickshire, it is, I think, unknown; but in Roxburghshire has been recorded by Elliot from the Jedburgh district, and by Mr Grant Guthrie as abundant in some years about Minto Rocks and Denholm Dean, near Hawick. From the latter station it was reported by Andrew Kelly in 1874.

[*LIGDIA ADUSTA*. Scorched Carpet.—Barrett, quoting from White, refers to a “one doubtful record from the extreme south-east of Scotland,” upon which I can throw no light. I never heard of it anywhere within our area.]

50. *LOMASPILIS MARGINATA*. Small Magpie or Clouded Border.—Somewhat whimsical in its selection of stations, but found more or less commonly all over the district.

51. *GEOMETRA PAPILIONARIA*. Large Emerald.—This splendid moth—a pure joy when first it gladdens the eye of an enthusiast—is a decided prize over all the northern portion of our area, but becomes not so very uncommon in the watershed of the Tyne, especially on its southern side.

In Northumberland it was first taken by Selby at Twizell in August 1853.* Other localities for the north of that county are Kyoel and Eglington. In the southern half it has occurred to me more than once at Lintley, as well as a little further up the South Tyne. I found one at Kielder in 1919, and Mr Watson has got it, not very uncommonly, at Sidwood.

At Houxy, on 27th July 1917, we had to get out the boat to rescue from drowning one which was observed being carried down the middle of a broad dub on North Tyne! Rescued from a watery grave to achieve immortality in this chronicle through the harsh medium of a setting-board?

Two more were taken at Houxy during the following summer,

* *Hist. B.N.C.*, vol. iii, p. 139.

one of them being a pale, buffish variety ; * in 1926 no less than eight fine fresh examples (two of them quite newly emerged) were casually found sitting about the garden and grounds during July and August. On 14th July 1920 Mr Abel Chapman found one, with wings yet limp, in the Grasslees Wood at Elsdon.

I have once or twice succeeded in beating the curiously rugose larvæ from alders and rearing the moth, but they grasp the branches so firmly that it is usually only when they are about full-fed (say at the beginning of July) that they can be made to relax their hold. In 1913 Mr G. Nicholson collected larvæ at Prestwick Car.

In Berwickshire, Buglass got a moth at Ayton in 1876, and another a year or two later ; Renton took two at Threeburnford in 1877 ; and in 1885 Dr Charles Stuart got one in Mains Wood, Chirnside.

For Roxburghshire, Kelly recorded a pair from near Hawick in 1873. For the Galashiels neighbourhood, Shaw referred to it as " very scarce " in 1904.

52. *IODIS LACTEARIA*. Little Emerald.—Unknown in the north of our district, and I have no knowledge of it anywhere in Northumberland, except the information given by Robson : " Mr Finlay took it at Hartburn, but very sparingly ; Mr Henderson got one or two at Jesmond."

53. *HEMITHEA THYMIARIA*. Common Emerald.—We have no knowledge of this in the north, and the only Northumbrian record known to me is that Mr W. G. Watson took a single specimen at Sidwood, North Tyne, in August 1907, which I saw in his cabinet.

It is a common insect in southern England and has occurred, rarely, in Yorkshire, and at Keswick in Cumberland, but the only record for Durham that Robson was able to give was one at Darlington more than fifty years ago. The larva feeds, however, on oak, hawthorn, birch, and other plants that are common all over the country.

54. *EPHYRA PUNCTARIA*. Maiden's Blush.—A rare species with us, having been detected in only four localities, though its

* For description see *Vasculum*, vol. iv, p. 95.

profusion in its Duns station seems to suggest that it may have been overlooked elsewhere.

Robson gives as our only known Northumbrian habitat, Jesmond, Newcastle, where it was taken by Mr Henderson. In Durham it is found sparingly in several places, as well as in Cumberland.

For Berwickshire, John Anderson of Preston, Duns, discovered it to be common on Marygold Hills in 1873, and all the specimens in our collections are due to his liberality. A single worn example was taken in the Ayton Woods by William Shaw in 1877, and Kelly reported it from Lauderdale.

55. *E. TRILINEARIA*. Clay Triple-lines.—Unknown north of Newcastle, and has only twice been taken in Northumberland.

Robson says: "Two stragglers only have been recorded in our counties. One in 1869 taken at Winlaton Mill by Mr Maling, and another a few years later at Jesmond by Mr Henderson." Winlaton Mill is some three or four miles on the Durham side of Tyne; and at Gibside, adjoining it, Professor Heslop Harrison took another single example on 13th June 1926.

Our second Northumbrian station is Stocksfield, where I saw one in Mr J. S. T. Walton's collection in 1919, which he had taken in his garden there the previous summer.

56. *E. PENDULARIA*. Birch Mocha. Must be rare and very local with us, as it is not a species that ought to be readily overlooked.

For Northumberland, it was included by Selby in his *Fauna of Twizell* (published in 1839), but had not subsequently been noticed in the county until I took it at Belshill (which adjoins Twizell) on 13th July 1903. It was but a single specimen that was then collected amongst some other insects casually picked up as we walked through the woods intent upon other matters, but it affords a very lucid illustration of how such things may occur? The woods and denes at both Twizell and Belshill were intimately known to me for many years, yet the best insects I ever secured in any of them were only taken as it were by accident. In like manner, a curious little pupa casually picked up at Mordington House, on 19th January 1904, when I was hunting the Berwick Beagles, in due course produced this moth,

which remains the only known occurrence for Berwickshire, or indeed for anywhere on the Eastern Borders of Scotland.

57. *ACIDALIA SCUTULATA*. Single-dotted Wave.—Is probably rare; at all events our only records are—

In Northumberland, “Finlay found it ‘scarce’ at Meldon Park, Mr D. Rosie found it near Dinnington and at Ryton” (Robson). [Ryton is actually in County Durham, though only divided by the Tyne from Northumberland; Dinnington is about midway between Morpeth and Newcastle. In the former county *scutulata* has several well-known stations.] I took single specimens on Cheswick Links, and at Kyloe, in August 1888 and 1891, but never met with it again.

In Berwickshire, Shaw netted one at Eyemouth in 1874, and one was got at Ayton some twenty years later. In 1874 John Anderson reported it as “not very common” at Broomhouse, on the Whitadder, and never found it otherwise afterwards.

58. *A. BISSETATA*. Small Fan-footed Wave.—Much better distributed than the last, and would probably be found not uncommonly if carefully looked for. Records are—

For Northumberland: Allerdean Mill, 1886, and frequently in later years; about Berwick and Ancroft was always fairly common; Haggerston and Alnwick; Meldon Park, but never plentiful, and Jesmond (Robson). Of late years has been found to be not infrequent at Houxty, and in the South Tyne valley.

In Berwickshire, Shaw found it rather commonly at Ayton and Eyemouth; Hardy got it about Cockburnspath, and I have seen it on the Whitadder banks.

In Roxburghshire, Mr Grant Guthrie looked upon it as common in the Hawick neighbourhood.

59. *A. TRIGEMINATA*. Treble Brown-spot.—Chiefly known only from the southern portion of England, but Robson gives Ryhope as a Durham locality.

Unknown to me personally in the wild state, but J. Anderson got one at Preston, Berwickshire, the identification of which was well established; the only record for any part of our district.

60. *A. DILUTARIA*. Dark Cream Wave.—This is the moth

that used to be known in our old lists as *osseata* and under that name was included in my paper in the Club's *History*, vol. xv, p. 299. It is the *A. interjectaria* of Newman's work (p. 78).

My capture of one at Allerdean Mill on 22nd August 1883 remained, for nearly forty years, the only record for Northumberland, but in 1916 I found it, in fair numbers, near Lintley on South Tyne. Robson gives several stations for it in Durham, one of them on the Derwent, the stream that divides the two counties, but there are, as yet, no other records for Northumberland.

From the Scotch side there are no uncontested records, though more than one claim has been made—and rejected in the time-honoured formula of "not proven."

61. *A. INCANARIA*. Small Dusty Wave.—I suppose this must be regarded as being only locally distributed since few collectors seem to have any knowledge of it in the northern portion of our area, although about Berwick it is sometimes abundant.

Localities are—For Northumberland: Berwick, Scremerston Sea House, and Ancroft, attracted at each place to growths of St John's Tea-plant (*Lycium barbarum*); Haggerston Mead and Alnwick (in the garden at Alnbank). Its stations round Newcastle—Jesmond, etc.—are referred to in detail by Robson, who also gives its Durham history.

In Berwickshire, Shaw got one at Eyemouth in 1876, but for many years never saw another; subsequently, however, it was found to be not uncommon about Gunsgreen, and other spots in that neighbourhood, again about *Lycium*.

Not noticed anywhere else.

62. *A. PROMUTATA* (*incanata*, Hüb., and (in part) *incanaria* in Newman).—There are old records of this insect for the Newcastle district, which Robson discusses, and gives Fenham, where it was taken by Mr D. Rosie, as the latest. In the north we had no knowledge of it.

63. *A. IMMUTATA*. Lesser Cream Wave.—Was included by Selby in the *Fauna of Twizell*, and Robson gives Bywell, where three specimens were taken by Mr D. Rosie some time subsequent to 1895, as his only other Northumbrian locality.

We have no further knowledge of it in the district.

64. A. REMUTATA. Cream Wave. — Well distributed in Northumberland, for which some localities are: Twizell, Berwick (not rare on sea-banks), Wooler, Houxty, Whitfield, Stocksfield, and (according to Stainton's *Manual*) Newcastle.

In Berwickshire, Shaw took a single specimen at Eyemouth in 1873, but never got another.

In Roxburghshire, Mr Grant Guthrie, in 1895, reported it as common in the Hawick neighbourhood.

These are our only records, but possibly it has been overlooked elsewhere. It has been found in the Edinburgh area, and in several places on the Durham side of Tyne.

65. A. FUMATA. Smoke Wave.—I have taken this on Detchant and Beanley Moors, and on Heatherington Moss; while Mr Watson gets it at Sidwood. At Corbridge it is abundant; but I do not find any other records for Northumberland, and none from the Scotch side of the Border. It is, however, a very likely species to occur there, and probably only wants more looking for. It occurs in several places in Scotland.

66. A. AVERSATA. Ribband Wave.—Common generally all over the district, where it has been well looked for. The variety *spoliata* is in some places almost as common as the type.

67. A. INORNATA. Plain Wave.—Probably cannot be so rare as the lack of records would seem to imply, but, however that may be, it has not been listed at all from Berwickshire, and from Roxburghshire only by Mr Grant Guthrie, by whom it was regarded as "not uncommon" in the Hawick neighbourhood. For Northumberland, Selby got it at Twizell, but my only other knowledge of it is that we took one near Berwick in 1888, but never saw another.

68. TIMANDRA IMITARIA. Small Blood-vein.—We have never met with this in the north; but T. J. Bold recorded "Five or six at Newbiggin-by-the-Sea, 18th and 30th July 1871"; * and

* *Nat. Hist. Trans. Northumberland, Durham, and Newcastle-upon-Tyne*, vol. iv, p. 382.

William Maling "June and July in various localities." * I have no personal knowledge of these ; perhaps Robson had sufficient reason for passing them over ? . He (Robson) refers to the record in Stainton's *Manual*, but said he was unable to find any confirmation for the inclusion of "Newcastle" therein. Perhaps it should be in brackets.

69. *ANIA EMARGINATA*. Small Scallop.—Robson refers to a record by Mr Henderson for Jesmond as being the only one he knew of for either Northumberland or Durham, and suggested that it might be "but a stray specimen." I have no knowledge of the species anywhere in the north.

70. *MELANIPPE HASTATA*. Argent and Sable.—Rare and very local. Selby got it at Twizell, and it is marked as occurring in the Newcastle area in Stainton's *Manual*. I have found it, though never commonly, on the west side of Detchant Wood, where the moor is fringed with wide beds of Bog-myrtle (*Myrica Gale*). It also occurs a little further to the southward at Hepburn Bell. William Maling recorded a single specimen from Hexham many years ago ; but these exhaust the Northumbrian localities ; and from ayont the Border there appear to be no records for our area.

71. *M. TRISTATA*. Small Argent and Sable.—Well distributed over the district on moory ground ; somewhat local, but abundant in many places. We have some pretty, pale, rather rusty-tinted varieties.

Localities are—Northumberland : Twizell, Learmonth, Kirknewton, Langleyford, Beanley, Rimside, Greenlee Lough, Sweethope, Houxty, Barhaugh Fell, Sidwood, Corbridge, Stocksfield, etc.

Berwickshire : Gordon Moss and Threeburnford, Bunkle Wood, and Coldingham Moor.

Roxburghshire : Jedburgh, Hoselaw Loch, and Hawick, commonly at each of them. In the Galashiels neighbourhood it was regarded by Shaw as distinctly scarce in 1904.

72. *M. RIVATA*. Wood Carpet.—Not common, and apparently very local.

* *Nat. Hist. Trans. Northumberland, Durham, and Newcastle-upon-Tyne*, vol. v, p. 144.

For Northumberland, it was recorded for the Newcastle district by W. C. Hewitson; and from Hexham in 1871. The only locality in which I have taken it is near Pawston Lake on our north-western boundary.

In Berwickshire, Lauder is, I think, its only certain station, and there it seems to be quite scarce, although no further away than Galashiels it is common.

73. *M. SUBTRISTATA* (*SOCIATA*). Common Carpet.—Abundant enough everywhere to well justify its trivial appellation.

74. *M. GALIATA*. Galium Carpet.—Curiously local considering the universal distribution of its food-plants. Must be reckoned rare in our district, as it has seldom been found in any numbers, although Hardy recorded it from Pease Dean so long ago as 1843.*

Localities are—For Northumberland: Marshall Meadows (12th July 1891), Kyloe, Chillingham, Norham, Bolam, and Sidwood. All only single captures except the last, where Mr W. G. Watson had half a dozen in 1920. At Alston (in Cumberland) it has occurred to me two or three times within the last ten years, once at over 1500 feet above sea-level.

In Berwickshire, Shaw got one at Eyemouth in 1873, but never saw another; Hardy, as noted above, took one in Pease Dean in 1843; in Lauderdale Kelly considered it “not uncommon” in 1874.

We have no records from Roxburghshire.

75. *MELANTHIA RUBIGINATA*. Blue-bordered Carpet.—Abundant in most places in which it occurs, but seems to be better known in Northumberland than across the Border. Very variable both in size and in colour; one which I took in Foulden Hag on 23rd August 1891 measured quite $1\frac{1}{4}$ inches in alar expanse, others have not exceeded $\frac{3}{4}$ of an inch. More or less smoky varieties, of the *plumbata* type, are frequent with us, and I have seen one that approached fig. *e* of pl. cccxxxviii in Barrett's work.

Localities are—For Northumberland: Twizell, Allerdean

* *Hist. B.N.C.*, vol. ii, p. 111.

Mill, Wooler, Langleyford, Beanley, Bolam, Ninebanks ; Meldon, Morpeth ; Houxty, Sidwood, and Stocksfield.

For Berwickshire : Gordon Moss, Ayton, Foulden Hag, and Pease Dean.

For Roxburghshire : Hawick, Kelso, and Cherrytrees near Yetholm.

76. *M. OCELLATA*. Purple Bar.—As common as the last and more generally distributed, which makes the enumeration of localities superfluous. Often they are found together, *rubiginata* perhaps outnumbering its congener amongst alder groves, but *ocellata* being equally at home in rocky mountain glens, in woods, or upon our treeless sea-banks. Larvæ on *Galium saxatile*.

77. *M. ALBICILLATA*. Beautiful Carpet.—Not common, and apparently very local ; not yet recorded from the Scottish side.

For Northumberland, I took it at Chillingham in 1898 ; and in the same year got one from Adderstone. Robson's correspondent, Finlay, found it scarce in Coal Law Wood in the Morpeth district, and from Stainton's *Manual* it seems formerly to have occurred round Newcastle. In 1907 Mr Watson took a single specimen at Sidwood.

The larvæ feed on Brummelkites (Brambles), Ash and Rasp, so that it cannot be from lack of food that the species is so rare with us. It has been pretty frequently taken in County Durham (commonly at Winlaton Mill) ; in Cumberland it is not common.

78. *M. UNANGULATA*. Sharp-angled Carpet.—There seem to be no Scotch records for this, and nowhere in the north of England is it anything but very rare.

Renton once thought he had got it about Gordon, but was, I think, afterwards satisfied that a mistake had been made.

My only local specimen was taken on the border of Fenwick Wood on 8th August 1888, and its correct identification was confirmed by Mr Richard South.

79. *ANTICLEA BADIATA*. Shoulder Stripe.—Well distributed through the district, but though it is generally looked upon as

a common moth, that has not been our experience in the north, where we have always regarded a specimen captured as rather a good thing.

In Northumberland, I have seen very little of it. It was included in Selby's *Fauna of Twizell*; we got one or two at Berwick, at longish intervals, and also at Belshill and Allerdean Mill. In 1926 I saw one at Houxty, and Mr Watson took it at Sidwood in 1921.

In Berwickshire, Hardy got it in Pease Dean; Shaw and Buglass both, rather sparingly, at Eyemouth and Ayton; Renton not very commonly at Fans and Gordon; Anderson only a single specimen at Preston in 1875; Kelly one at Addinstone, Lauderdale, in 1873.

In Roxburghshire, Mr Grant Guthrie, in 1895, spoke of it as not very common. At Galashiels it was considered good in 1896.

At Alston one came in at my window on 7th April 1926.

80. A. DERIVATA. The Streamer.—Another widely distributed but never very common species.

In Northumberland, I have taken it at Berwick, Allerdean, Haggerston, Kyloe, Chillingham, Houxty, and Barhaugh. Robson says rare, but gives localities as Meldon Park, Jesmond, and Newcastle.

It was included in Selby's Twizell list; and Mr Watson has taken it several times at Sidwood.

In Berwickshire, Shaw got it at Eyemouth, but never commonly; Renton at Fans; and Anderson at Preston.

For Roxburghshire, Elliot got it about Jedburgh, and Mr Grant Guthrie occasionally round Hawick.

At Galashiels it is not uncommon.

81. COREMIA MONTANATA. Silver-ground Carpet, and

82. C. FLUCTUATA. Garden Carpet.—Two of the commonest moths everywhere, each equally variable.

83. C. MUNITATA. Red Carpet.—A common species all over our upland districts, rendering it unnecessary to give localities for such; but it reaches also to the coast, where, being rarer, it may deserve more attention.

We occasionally got it at Berwick, and it has occurred pretty freely about Spindleston and at Newbiggin-by-the-Sea.

84. *C. PROPUGNATA*. Flame Carpet.—Very much less common than the last and seldom found in any numbers. It is also much more restricted in its distribution.

In Northumberland, Houxty, on North Tyne, is the only station in which I have met with it more than singly; but it has occurred to me at Fenwick Wood (16th June 1895), Chillingham, and Bolam. Finlay found it "always scarce" at Meldon Park, other localities mentioned by Robson being Hexham (one near Warden in June 1891), and Newcastle. Mr Watson occasionally takes it at Sidwood. In the valley of the South Tyne about Alston it is not uncommon, and comes now and then to the light of our windows.

For Roxburghshire, Mr Grant Guthrie, in 1895, referred to one taken at Hallrule, near Hawick; but no one else has recorded it for that county, and no one at all for Berwickshire. For Galashiels Shaw gave it as "rare" in 1904.

85. *C. FERRUGATA*. Red Twin-spot.—Much commoner than the last, and generally distributed over the district.

In Northumberland, I got it at Kyloe in 1895, Beanley the previous year, and at Coldmartin Loughs and Fowberry Park in 1900. At Houxty we found it on 18th June 1920, having seen it plentifully near Greenlee Lough the previous day. Robson's only record for the county was that Finlay took one at Greenleighton. At Alston (Cumberland) it is sometimes far from rare.

In Berwickshire, we have as localities, Gordon Moss (Renton) and Lauderdale (Kelly, 1874, "abundant").

From Roxburghshire, Elliot sent me specimens in 1888, he having noted it as "in fir woods but not common" for the Jedburgh district, while Mr Grant Guthrie has recorded "three taken in the neighbourhood" of Hawick. About Galashiels Shaw called it "common" in 1904.

86. *C. UNIDENTARIA*. Dark-barred Twin-spot.—A rare moth in our district, but not uncommon over the watershed into

Cumberland. It very closely resembles the last, and nothing but a keen examination will distinguish the one from the other.

I took a specimen upon the wing at Newham Bog on 25th May 1893, which remains our only record for Northumberland, or indeed any part of the district. For, though Barrett (vol. viii, p. 164) says "very rare in Berwickshire," I am not aware of a single definite record for that county.

87. *C. PECTINITARIA*. Green Carpet (*Larentia pectinitaria* in our old lists).—Well distributed and common throughout the district; especially addicted to bushy glens amongst the hills; generally very abundant.

88. *C. SALICATA*. Striped Twin-spot.—Has rarely been identified anywhere in the district.

For Northumberland, Selby got it at Twizell; I took one at Chillingham in 1898, and another on the sea-banks at Marshall Meadows the same summer. (This is within a field or two of the Scottish March at Lamberton.) Finlay found it sparingly in Coal Law Wood in the Morpeth neighbourhood (Robson).

In the Jedburgh district of Roxburghshire Adam Elliot found it "on hillsides in higher localities flying at dusk."

For Berwickshire, Shaw told me in 1899 that the only specimen known to him had been taken by John Anderson at Preston, near Duns.

William Evans recorded it for the Edinburgh district.

89. *C. DIDYMATA*. The Twin-spot.—Swarms everywhere, often to the great annoyance of him who would fain devote his attention to something better.

Barrett says: * "At no time does either sex do more than hover and flit quietly over the same few yards of ground, never rising to any height in the air, or, apparently, moving to any distance." I feel certain that all collectors in our area will share my regret that our Twin-spots exhibit so little inclination to behave in that orderly manner.

90. *C. MULTISTRIGARIA*. Mottled Grey.—A common species generally throughout the district, and plentiful in many places.

* *Lepidoptera of the British Islands*, vol. viii, p. 178.

On the wing for about a month from the middle of March. May be found at dusk flying over the heather far up the bare hillsides, what time there is yet but little indication of growth on bedstraws or other plants.

91. *LARENTIA CÆSIATA*. Grey Mountain Carpet.—An abundant species in all moorland tracts all over the district, and not confined to moors only. Dashes out in bewildering plenty as you pass its resting-places on rocks or walls, distracting the attention from any less conspicuous insect on which perhaps you are wishful to concentrate at the moment.

Some of its varieties are strikingly beautiful.

92. *L. FLAVICINCTATA*. Yellow-ringed Carpet (*ruficinctata* of Newman's work, and of our old lists).—Not easily distinguished from the last "in the field," but said by Barrett to be "more sluggish; when sitting upon the same rocks it will remain undisturbed when every *L. cæsiata* has dashed off in alarm." That may be so, but the sluggard is a creature of moods and tenses, and on our mountain-rocks I have often found, long after the first coveys of *cæsiata* had dashed away, a few still remaining, ready to rise in relays when more nearly approached, and, even after they had gone, still others that would sit and allow themselves to be closely scrutinised, but all of which, notwithstanding their inertness, proved to be only the common moth!

L. flavicinctata is a rare species in England, but I believe we once got it in the College valley above Harrow Bog, Northumberland, but the specimen was lost, and no more than a sentimental and personal interest can now be attached to it. Robson has pointed out that "Stainton's *Manual* gives Newcastle as a locality for this species, which must refer to some of the Northumberland moors, but none of the recent collectors appear to have met with it." In that unsatisfactory state I must leave its claim to be regarded as a Northumbrian species.

Mr Grant Guthrie has recorded "one at St Mary's Loch [Selkirkshire], August."

93. *L. OLIVATA*. Beech-green Carpet.—Well distributed over the district and not so uncommon as it was at one time supposed to be. For localities we have—

Northumberland: Twizell (Selby), Adderstone (first taken in 1884, but since found fairly commonly there), Haggerston (not rare), Chillingham, Houxty (common), Featherstone Castle and elsewhere in the South Tyne valley, Whitfield, Dalton, Stocksfield, round Newcastle, and local but not rare in the Morpeth area.

For Berwickshire records are lacking, and its presence was always regarded as unproven, but I can scarcely believe that it will not be found there.

For Roxburghshire the only collector who has taken it is Mr Grant Guthrie, who found it not common in the Hawick district.

About Galashiels it has long been known to occur in plenty.

94. *VENUSIA CAMBRICARIA*. Welsh Wave.—Very local and apparently not common, although the records show it to occur in widely separated localities.

For Northumberland, I took one at Kyloe on 14th June 1896, and another in July 1898; one at Berwick a year or two later. Finlay took it rarely at Old Park, Netherwitton; Mr D. Rosie at Slaggyford; and Professor Harrison commonly at Corbridge.* In the South Tyne valley I have seen it on several occasions from Alston down to Kirkhaugh; and Mr Watson takes it occasionally at Sidwood.

In Berwickshire, Renton got it at Threeburnford "not uncommonly," and Anderson once at Preston, near Duns.

In Roxburghshire, Elliot found it in some of the fir woods in the Jedburgh district, but never commonly.

At Galashiels, Shaw, in 1904, called it "scarce," but I have a note of his written five years previously in which he speaks of it as being common in some years.

(To be continued.)

* Robson's *Catalogue*, vol. i, p. 222, and vol. ii, p. 261.

NOTES ON THE INSECTS OF BERWICKSHIRE.

II.—SAWFLIES.

By JAMES CLARK, M.A., D.Sc., A.R.C.S.

As in my paper on the Bees, Wasps, and Ants of Berwickshire, the following notes are based on insects collected during rambles in the county from 1875 onwards. I am also able to include the results of three months' continuous investigation of the insect life of the county in 1892, when I was accompanied and enthusiastically assisted by three former pupils of the Agricultural College, Downton, one of whom, Mr N. E. Brown, had already made considerable progress in systematic entomology and had had helpful experience in sweeping and beating for Sawflies. In the classification of my sawflies and in the synonymy of the sub-order I received invaluable help from the members of the entomological staff at the Natural History Museum, South Kensington. The 1892 list was indeed ready for publication when I was advised by my friend and guide, the Rev. T. A. Marshall, Rector of Botus Fleming, to give some attention to Pastor Konow's recent classification. So many difficulties immediately arose in connection with the subject that the publication of the list was indefinitely postponed. In 1905, and again in 1907, I had the opportunity of having all the critical specimens identified by Konow himself and of discussing with him personally the difficulties of classification and diagnosis. The notes as now presented follow the system of the Rev. F. D. Morice in his summary of the classification, nomenclature, and definition of species gradually evolved by continental specialists, as far as they applied to British sawflies.

The remarkable variation in the proportion of males to females throughout the whole group and the prevalence of parthenogenesis make it advisable in the majority of cases to record the sexes separately. As the following list is simply a personal contribution to the insect fauna of the county and makes no

claim to completeness, I have made no reference to the admirable observations of the late Dr James Hardy on the sawflies of Berwickshire.

Several females of *Lyda erythrocephala*, L., were obtained at the junction of the Ale and the Eye Water in 1877. Two females of *L. stellata*, Christ, were captured at Cowdenknowes early in June 1877, one near Thirlstane Castle, Lauder, in 1878, and several about Carolside on 29th and 30th May 1892. A solitary male was taken at Bemersyde about the end of May 1905. Occupied larval cases of *Pamphilius depressus*, Schr., were noticed at Coldstream in 1878 and near the junction of the Whitadder and Tweed on 4th August 1892. Females had been taken at Earlstoun on 25th May that same year. A female of *P. balteatus*, Fall., was discovered near the top of Lammer Law in 1877. A female of *P. sylvaticus*, L., was captured at Drygrange early in June 1879, and two at Edrom in the late spring of 1890. Females were repeatedly obtained at Chirnside, and at Allanton during the last week of June 1892. The characteristic cheroot-shaped larva cases of *P. inanitus*, Vill., were common among the leaves of climbing roses about Chirnside in 1883, and at Ladykirk towards the end of July 1892. Several females were taken that year on the 4th of June at Legerwood, and one on the 11th at Harryburn House, Lauder. Several females of the tiny *Xyela julii*, Breb., were secured near Eyemouth in 1877. A male of *Cephus pallipes*, Htg., was taken at Chirnside in 1876, and two females at Ladykirk in 1892. Two females of the long-necked *Xiphydria camelus*, L., were found on successive days near Burnmouth in 1877. The impressive *Sirex gigas*, L., is of frequent occurrence in the county, imported no doubt for the most part as larvæ in foreign timber, but examples have been taken at Spottiswoode and Carolside that suggest permanent settlement. Two females of *S. noctilio*, Fab., were sent in from near Coldstream by Mr Brotherston of Kelso in 1881, and one was received from Duns in August 1906, all doubtlessly hatched out of imported wood. Females of *Cimbex femorata*, L., were found about Cowdenknowes early in June 1878, and late in May 1890. Specimens have also been recorded from Dryburgh, Chirnside, and Greenlaw. Females of *C. lutea*, L., were obtained at West Gordon in the third week of June 1875, at Chirnside and Allanton in 1876, and at Whalp-

law Burn on 13th June 1892. Two males were secured at Dryburgh in 1878. Several females and a male of *Trichiosoma silvatica*, Leitch, were taken at the Hen Poo, Duns, in 1875, and two males at Edrington in 1876. Three females found at Eccles in 1890 were each little more than half an inch in length, while three selected from a number at Mellerstain on 1st June 1892 were each just over an inch long. In 1876 larvæ of *T. tibialis*, Leitch, were abundant on the foliage of the hawthorn at Abbey St Bathans, and a few were noted at Longformacus. Females and occasional males were captured at Eccles and at Chirnside in 1890, and about Cowdenknowes and Carolside from 25th to 30th May 1892. Larvæ of *T. lucorum*, L., are common at least in some years on birch throughout the county, and in 1878 and 1905 imagos were plentiful and included a fair sprinkling of males. *Abia sericea*, L., is of frequent occurrence in the county, and males are not uncommon. In 1874 it was abundant about Dryburgh and Bemersyde, and continued so till the dismally wet year of 1879, when it disappeared entirely, and though specially looked for, not a single specimen was encountered there till 1890. In 1905 three females were captured at Hume before the beginning of May. Occasional females of *A. fasciata*, L., have been secured at Coldstream, Thirlstane Castle, and Abbey St Bathans, but there is no male in my Berwickshire collection. Males of *Tenthredo ustulata*, L., have been sparingly obtained at Cowdenknowes, Spottiswoode, Abbey St Bathans, and Ladykirk. In 1890, a male was secured at Edrom, and on 1st June 1892 another at Mellerstain, along with several females. Solitary females of *Pteronus pini*, L., were captured at Earlston in 1878, and by the Whalplaw Burn on 12th June 1892. A male of *P. sertifer*, Fourc., was obtained close to the junction of the Whitadder and Tweed in 1876, and several females close to Ladykirk House in 1878, while a solitary specimen was taken at Duns on 19th July 1892. *Cladius pectinicornis*, Fourc., was caught in the gardens at Cowdenknowes and Duns in 1875, sparingly at Chirnside in 1876 and 1890, and was fairly common at Thirlstane Castle in 1892. Males were obtained at Duns and at Thirlstane. A female of *T. viminalis*, Fall., was found at Dryburgh in August 1876, and another at Mertoun in 1889. *Priophorus padi*, L., seems to be widely distributed, and in most years locally common throughout the county. Two males were

taken towards the end of May 1890 at Allanton, and one at Mellerstain on 1st June 1892. Several females of *Platycampus luridiventris*, Fall., were obtained close to Cranshaws Church in 1876, two near Coldstream in 1878, and one at Eccles in 1890. Two females of *Hemichroa alni*, L., were secured at Carolside in 1877, and several at Legerwood on 4th June 1892. In 1878 *H. crocea*, Geoff., was fairly common about Mellerstain, and casual specimens have been met with at Longformacus, Coldingham, and Chirnside. Not a single male of the genus appears so far to have been captured in the Border counties. *Dineura nigricans*, Christ, though not seen in quantity, is widely distributed in favourable seasons like 1892, and males are not infrequent towards the end of May and the beginning of June. Females of *D. stilata*, Htg., were taken at Cowdenknowes, and at Lauder early in June 1876, and were fairly common at Abbey St Bathans the following year. In 1883 several along with a male were obtained at Thirlstane Castle. In 1892 a male was found at Legerwood on 4th June, a female at Thirlstane Castle on the 8th, and several at Spottiswoode on the 10th. In August of that same year larvæ were plentiful on Hawthorn about Longformacus and Abbey St Bathans. Females of *D. testaceipes*, Klug, were collected about Lauder in 1877, sparingly at Dryburgh the following year and on 24th May 1905, and at Spottiswoode along with two males about the end of May 1890. A female of *Euura medullarius*, Htg., was captured near Coldstream in 1878. In July 1892 galls of this species were abundant at Hirsell Loch and in August at Abbey St Bathans. Solitary females of *E. saliceti*, Fall., were obtained near Dryburgh in May 1880, two at Legerwood on 4th June 1892, and one at Thirlstane a few days later. A male of *Pontania leucosticta*, Htg., was taken at Cowdenknowes on 1st June 1875, and several females at Duns a fortnight later. Females were evidently common about Coldstream in 1878, and in 1892 casual specimens were captured at Legerwood on 4th and 5th June, and at Chirnside three weeks later. About the end of May 1905 a male was picked up in a torpid condition between Dryburgh and Bemer-syde. A female of *P. viminalis*, Htg., was taken to the north of Lauder in 1890, and two on the 8th June 1903 at Carolside. I have two undated females of *P. bella*, André, from Coldstream, and galls of this species were gathered in 1892 at Chirnside and

at Birgham. A solitary female of *P. salicis*, Christ, was obtained at Chirnside in May 1876; two males among a number of females were secured in the Leader valley early in May 1890; and females were found sparingly at Corsbie Castle on 6th June 1892. Galls were plentiful that same year at Abbey St Bathans, Nisbet, and Hirsell Loch. Females of *P. proxima*, Lep., were taken sparingly up the Leader valley in 1876, about Coldingham Loch and the Ale Water in 1877, and at Coldstream in 1878. In May 1890 they were fairly common about Mellerstain and Lauder, and in 1892 were collected at Chirnside, Duns, and Ladykirk. Galls were sent in from Coldstream by Mr Brotherston in 1883, and were common about Abbey St Bathans in August 1892. No male so far has been recorded for the county.

A male of *Pteronidea salicis*, Lep., was found dead on the path at Drygrange in the third week of May 1890, and two were secured at Carolside on 30th May 1892. Females were common at Mellerstain two days later. Both sexes of *P. dimidiatus*, Lep., were obtained at Coldstream in 1878, and at Chirnside in 1890. Females were collected at Longformacus on 17th June 1892. *P. ribesii*, Scop., the "gooseberry caterpillar," is often abundant in the larval stage throughout the county on gooseberry and redcurrant bushes. Imagos are plentiful from the middle of April and males at times are much in evidence. A male of *P. pavidus*, Lep., was taken at Longformacus in 1876, and three females a few days later at Abbey St Bathans. On 16th June 1892 a female was captured at Cranshaws Church, and one a week later at Edrom. *P. myosotidis*, Fab., was fairly common round Dryburgh in 1876, at Ladykirk in 1877, at Cowdenknowes and Mellerstain in 1878, and again in 1892. Casual specimens have been collected at Edrom, Duns, Abbey St Bathans, and Paxton House. In the beginning of the season males are at times as common as females. A male of *P. leuco-trochus*, Htg., was obtained at Lauder about the end of May 1890, two females and a male at Duns early in June that same year; while larvæ were found on gooseberry foliage at Chirnside in July 1922. A female of *P. curtispinus*, Thoms., was caught at West Gordon on 3rd June 1892. Females of *P. brevis-valvis*, Thoms., were fairly common at Hirsell Loch from 21st to 23rd July 1892, and a female of *P. testaceus*, Thoms., was

secured on the Ale Water in 1877. Females of *P. miliaris*, Pz., were obtained at Ladykirk in 1876, and again two years later.

Females of *Amauronematus histrio*, Lep., were captured at Edrington in 1876, and a male at Earlston on 25th May 1892. A female of *A. fallax*, Lep., was picked up on the path at Hen Poo, Duns, on 30th July that same year. Females of *Nematus septentrionalis*, L., were fairly common about Chirnside in 1876, at Ayton in 1877, and opposite the mouth of the Till and about Paxton House in the last week of July 1892. A male was obtained at Dryburgh in May 1905. *N. varus*, Vill., was common at Abbey St Bathans in 1876, and several were taken singly between Earlston and Lauder in 1877 and 1878. Two were found at Corsbie on 4th June 1892. The male seems to be completely unknown in Great Britain. A solitary female of *Holcocneme lucida*, Pz., was captured at Duns in 1875, several at Earlston in 1877, and two males at Bemersyde on 24th May 1892. *Nematina abdominalis*, Pz., was fairly common in 1877 along the lower reaches of the Ale, and three males were obtained singly at the junction of that stream with the Eye Water. Larvæ were abundant between Greenlaw and Polwarth early in September 1892, and several females were seen about Dryburgh in May 1905. Females of *N. luteus*, Pz., were secured on the Dye Water above Longformacus in 1876, near Allanton in 1879, and along with two males at Cowdenknowes in May 1890. On 11th June 1892 females and occasional males were taken round Harryburn House and Thirlstane Castle, and a few days later females were plentiful at Spottiswoode. On 13th June females were taken on the slopes and summit of South Hart Law and of Hunt Law in the Lammermoors. Females of *N. bilineatus*, Klug., were fairly common about Coldstream in 1878, when two males were taken, and occurred sparingly about Ladykirk the same year. In most years *Pachynematus trisignatus*, Foerst., is common almost everywhere, and is evidently one of the most generally distributed sawflies in the Border counties. Round Cowdenknowes in May 1892 males were to females in the proportion of one to three, but the former rapidly diminished as the season advanced. Larvæ are abundant on sedges, on marshy land, and on banks of streams. Females of *P. leucogaster*, Htg., were obtained locally in the valley of the Leader in 1876, 1890, and 1903; and round Coldstream and on

the banks of the Tweed opposite the mouth of the Till in 1892. Females of *P. obductus*, Htg., were taken sparingly about Dryburgh and Bemersyde in 1877, and again in 1878, 1881, and 1922. Occasional specimens have been found at Abbey St Bathans, Allanton, Nesbit, and Ladykirk, but the species is never common. Females of the well-marked variety *conductus*, Ruthe., were captured at Cowdenknowes in 1878, and have been collected singly or in pairs at Chirnside, Coldingham, Burnmouth, and Fogo. *P. rumicis*, Fall., was common about Dryburgh and Bemersyde in 1881, near Earlston about the end of May 1890, and again in 1892. Males are of frequent occurrence, and at Legerwood in June 1892 were more in evidence than the females. At Dryburgh, Abbey St Bathans, Hume, and Duns, females have frequently been taken in June and July. Females of *Pristiphorus pallidiventris*, Fall., were moderately common about Chirnside in 1876 and 1877. In 1892 specimens were obtained at Edrom on 25th June, at Nesbit on 5th, and at Paxton House on 31st July. On 12th July 1925 one was found close to Earlston. A female of *P. fulvipes*, Fall., was taken at Spottiswoode on 10th June 1892. Females of *Phyllotoma nemorata*, Fall., were recorded from Cowdenknowes in 1879 and 1892, from Spottiswoode in 1890, and from Lauder in 1892. Solitary females have been taken at Cranshaws Church, at Abbey St Bathans, and at Greenlaw. The male is evidently unknown. Of *P. microcephala*, Klug, females were obtained at Duns in 1875, at Cowdenknowes in May 1878, at Carolside on 29th May 1892, and again in May 1905. A male and a female of *P. vagans*, Fall., were captured separately by the Dye Water above Longformacus in 1876; several females were found near Allanton in 1890 and again on 30th June 1892; while two, along with a male, were secured at Dryburgh in 1902. The roses at Coldstream were badly attacked by the larvæ of *Caliroa æthiops*, Fab., in 1874, and again in 1875. Similar attacks were noted in the Leader valley in 1878 and in 1892. Females were common in the early summer about Cowdenknowes, Lauder, Chirnside, and Duns in 1892, and casual specimens have been obtained throughout the county. In most years *C. limacina*, Retz., would be regarded as a scarce insect throughout the county, but in 1881 the slug-like larva did considerable damage to the pears, cherries, and raspberries along the valley of the Leader,

at Chirnside, Duns, and Coldstream. In the summer and autumn of 1892 the larvæ were common not only in gardens, but were widespread on brambles, especially in the north of the county. In 1897 they again invaded the fruit gardens, and at Duns were reported as common on oak trees. Females of *C. annulipes*, Klug, were common about Lauder in 1876, about Ladykirk in 1877, and at Coldstream in 1878. Several were taken at Spottiswoode on 10th June 1892, and five days later a male was found at Longformacus. A male of *Hoplocampa crataegi*, Klug, was taken at West Gordon in 1875, another at Ayton in 1877, and two at Spottiswoode in 1892. Females were obtained at Mellerstain in 1878, at Bemersyde in 1880, at Earlston and Lauder in 1890, and at Bemersyde, Legerwood, Thirlstane Castle and Birgham in 1892. A female of *H. ferruginea*, Pz., was found at Chirnside in 1890 and another at Allanton on 2nd July 1892. In the middle of May 1903 a female of *Mesoneura opaca*, Fab., was caught at Drygrange, and another the following day at Lauder. A solitary female of *Periclista lineolata*, Klug, was captured at Spottiswoode on 9th June 1892. Ten days previously two females of *P. melanocephala*, Fab., were obtained at Carolside. Single specimens were also recorded that season from Cranshaws, Polwarth, and Birgham. Females of *Tomostethus fuliginosus*, Schr., were taken on marshy land to the north of Legerwood in 1878, between Greenlaw and Polwarth on 6th July 1892, and one close to Hirsell Loch in 1905. Females of *T. luteiventris*, Klug, are not uncommon locally on marshy land throughout the county as at Whalplaw Burn, on Legerwood Moss, to the north of Greenlaw, and among the Lammermoors.

The cylindrical larva cases of *Blennocampa pusilla*, Klug, were common on wild roses about Cowdenknowes in 1877, there and at Chirnside in 1890, and about Abbey St Bathans, Allanton, and Nesbit in 1892. Females were common in the Leader valley in 1877, and several were taken at Eyemouth that same year. Occasional specimens have been collected at Earlston, West Gordon, and Edrom. Two females of *B. alterneipes*, Klug, were obtained at Earlston about the beginning of June 1877, and one in May 1890. In 1892 they were common about Preston, Duns, and Ladykirk, and solitary specimens were recorded from Cowdenknowes, Mellerstain, and Cranshaws Church.

Two males and a number of females of *B. tenuicornis*, Klug, were found at Legerwood on 4th July 1892. Solitary females have also been secured at Mellerstain, Cranshaws, and Fogo. A female of *B. subcana*, Zadd., was taken at Earlston in 1890, along with the female of *B. alterneipes* already recorded. Another was captured at Carolside on 30th May and several at West Gordon on 30th June 1892. It was common that year by Primrose Hill and Preston. Two females of *B. geniculata*, Steph., were beaten out at Abbey St Bathans in 1876; on 18th June 1892 it was fairly common between there and Longformacus and a male was secured about midday. *Scolioneurana*, Klug, is represented in my county collection by three females taken at Duns in 1890, and two from Hirsell Loch on 22nd July 1892. In 1879 two females of *S. betuleti*, Klug, were captured at Ayton. Two males of *Monophadnus geniculatus*, Htg., were obtained at Harryburn House, Lauder, in June 1875, and one at Coldstream in 1878. In 1890 three females were procured at Edrom. On 28th May 1892 they were frequently seen about Earlston, and a male was captured there the following day. That same year females were much in evidence about Lauder and Thirlstane Castle. One was found at Dryburgh in 1903. A female of *M. albipes*, Gmel., was taken between Cranshaws and Abbey St Bathans in 1876, one close to Earlston in 1877, and two near Eyemouth in 1879. In 1883 several were found together at Earlston, and in 1892 they were recorded locally up the Leader valley as far as Harryburn House, and a male was secured at Carolside on 30th May. Late in May 1890 three females of *Kaliosysphinga ulmi*, Sundev., were swept from the marshy land north of Legerwood, and several at Spottiswoode on 10th June 1892. Two females of *Fenusa pygmæa*, Klug, were taken in the neighbourhood of Abbey St Bathans in 1876, and one on 16th June 1892.

In my early days sad tales were told of the ravages of the black larvæ—"niggers" they were called—of *Athalia spinarum*, Fab., on turnip crops in the early part of the century, but the last recorded capture seems to be at Old Cambus in 1859. A male of *A. lugens*, Klug, was obtained at Mertoun in 1889 and another at Abbey St Bathans on 23rd June 1892, while three females were secured at Duns on 17th and 18th July that same year. *A. lineolata*, Lep., in favourable years like 1878 and 1892,

is plentifully distributed over the county up to the height of about a thousand feet, the sexes being about equally represented. Females of *A. glabricollis*, Thoms., were frequently taken to the north-east of Coldstream in 1877 and 1878, and at Earlston and Allanton in 1890. Two years later they were common about Earlston and occasional specimens were recorded at Legerwood, along the Whalplaw Burn, and on the slopes and summit of South Hart Law. A male was procured that year at Cowdenknowes on 20th May and another at Corsbie Castle on 6th June. *Selandria flavens*, Klug, was obtained on the marshy ground to the north of Legerwood in June 1877, in May 1890, and early in June 1892, the number of males and females taken being about equal. That last year females only were found in quantity round the Hirsell Loch towards the end of July. *S. serva*, Fab., is common on marshy land and in favourable seasons occurs all over the Lammermoors, the males about equalling the females in number in May and the first week of June. Females of *S. sixii*, Voll., were captured by the Whalplaw Burn and Hirsell Loch in 1892. Two females of *S. temporalis*, Thoms., were secured at Eccles in 1890 and were identified by Cameron. *S. stramineipes*, Klug, is widely distributed. It was plentiful about Abbey St Bathans in 1876, in 1892, and in 1893. It is usually to be found about Dryburgh Abbey and the Leader valley in May and June and has been taken at Nesbit, Primrose Hill, Duns, Paxton House, and casually elsewhere. No males so far have been recorded for the county. Two females of *S. morio*, Fab., were found near Allanton in 1878, and one at Chirnside on 30th June 1892. A female of *Trinax continua*, Knw., was taken close to Earlston in May 1890, and that same year a female of *T. mixta*, Klug, was captured between Edrom and Chirnside. Several females of *T. macula*, Klug, were collected about the Hen Poo, Duns, in 1875, and one was found at Cranshaws Church in 1892. Females of *Stromboceros delicatulus*, Fall., are widely distributed, but rather scarce. They have been collected singly, in pairs, and rarely in threes at Dryburgh and Bemersyde, along the valley of the Leader, at Longformacus, Abbey St Bathans, Greenlaw, Chirnside, and Nesbit. *Strongylogaster cingulatus*, Fab., is widely distributed, as at Chirnside in 1878, Cowdenknowes, Thirlstane, and Spottiswoode in 1892, and Duns in 1893. I have never been so for-

tunate as to find a male of the last two species. Several females of *Eriocampa ovata*, L., were captured along the lower reaches of the Ale Water in 1877, and two in 1879. In July 1892 occasional specimens were collected between Longformacus and Abbey St Bathans. *Empria pulverata*, Retz., was plentiful along the lower reaches of the Ale in 1877, and occasional specimens have been obtained about Mellerstain, Harryburn House, and Thirlstane Castle, by the Dye Water near Longformacus, at Duns, and opposite the mouth of the Till, but there is no male in my collection. A male of *E. excisa*, Thoms., was captured at Coldstream in 1877, and two females the following year. Females were fairly common at Mellerstain in May 1890, and about Cowdenknowes in 1892. That year a male was obtained at Lennel on the Tweed on 5th July. Females of *E. liturata*, Gmel., were several times taken at Carolside on 30th May, and at Preston on 20th June 1892, and two were found at Drygrange in May 1903. Solitary females of *E. immersa*, Klug, were secured at Duns in 1875, and at Chirnside in 1877 and 1879. *E. longicornis*, Thoms., is represented by a single female caught on Hogweed at Corsbie Castle on 5th June 1892. Occasional females of *Emphytus togatus*, Pz., were taken about Lauder in 1882, at Greenlaw on 10th July 1892, and at Duns on 1st August 1893. *E. cinctus*, L., was common in gardens in the lower Leader valley and at Duns in 1875, at Chirnside in 1876, and round Earlston and Lauder in 1890. In 1892 it was collected locally from Drygrange to Lauder, at Spottiswoode, and along the Whitadder from Cranshaws to Primrose Hill and Preston. Occasional specimens have been obtained at Greenlaw, Polwarth, Ladykirk, and Eyemouth. Males are of frequent occurrence, especially in the beginning of the season. Two females of *E. ruficinctus*, Retz., were taken close to Abbey St Bathans in 1876, one at Legerwood on 4th June 1892, and one at Cowdenknowes in 1893. A solitary female of *E. calceatus*, Klug, was captured by the Eden Burn at Corsbie on 7th June 1892. That same year two males of *E. serotinus*, Klug, were found at Abbey St Bathans on 1st October, and several females on the 6th. Females of *E. tener*, Fall., were common at Ladykirk in 1876, and specimens were taken about Primrose Hill and Paxton in 1877. One was picked up dead in the front of Harryburn House in June 1903. Two

females of *E. carpini*, Htg., were obtained near Earlston in 1892 and one close to Mellerstain House on 12th June 1905. In June 1903 a solitary female of *E. perla*, Klug, was captured near Coldstream. *Taxonus glabratus*, Fall., is widely, but as a rule, sparingly distributed, the sexes being about equal. It has been secured between Dryburgh and Bemersyde, along the valley of the Leader, at Spottiswoode, Cranshaws, Chirnside, Fogo, Eyemouth, and Paxton House. *T. equiseti*, Fall., was common at Thirlstane Castle in 1892, was taken sparingly at Cranshaws, Abbey St Bathans, and Preston that same year, and round Earlston in 1897 and 1903. Solitary specimens have been procured at Allanton, West Gordon, and Birgham. Early in June 1892 males were almost as common as females. Solitary females of *Loderus palmatus*, Klug, were found at Lauder in 1877 and 1903, and at Carolside on 29th May 1892. Two females of *L. vestigialis*, Klug, were obtained at Coldstream in 1877, one in 1878, and one at Hutton Castle on 4th July 1892. *Dolerus pratensis*, Fall., is generally distributed and occasionally common as in 1892, 1897, and 1903. The sexes seem to be about equally represented, and the same statement holds good of *D. palustris*, Klug, which has been taken sparingly on marshy ground at Legerwood, Spottiswoode, and Hirsell, and more plentifully throughout the Lammermoors. A male of *D. madidus*, Klug, was obtained at Edrington, and another at Longformacus in 1876. In 1877 a male and several females were captured at Ayton. In 1892 both sexes were fairly common about Dryburgh, Earlston, and Cowdenknowes, and females were taken at Chirnside, Allanton, and Nesbit. Two females and a male of *D. dubius*, Klug, were captured to the west of Spottiswoode on 10th June 1892. Three females of *D. gessneri*, André, were secured separately at Ladykirk in June 1877. *D. gonager*, Fab., is widely distributed and locally common throughout the county. It has been collected on the top of Crib Law and of Hunt Law. The males vary in number, but at their maximum are about half as numerous as the females. A female of *D. hæmatodes*, Schr., was secured at Bemersyde in May 1877. In May 1878 the species was abundant about Allanton, and males were common. A female was taken at Lauder in 1890, and three males and two females at Carolside on 30th May 1892. Females of *D. niger*, L., were found near

the junction of the Whitadder and the Tweed in May 1905, and a solitary specimen was beaten out at Thirlstane in August 1922. Two females of *D. nigratus*, Müll., were obtained near Dryburgh in May 1890, a male and a female on 24th May 1892 at Bemersyde, and males and females in about equal number about Cowdenknowes in May 1903. *D. æneus*, Htg., is of common occurrence in sheltered localities throughout the middle of the county from the end of May till the second week in August. It has also been captured at Lauder, Abbey St Bathans, and Cranshaws. In this species the males are often as common as the females. *Rhogogastera viridis*, L., is widely spread and locally plentiful. It was very scarce in the wet season of 1879 and 1903, but in favourable years literally swarms at times about Cowdenknowes, Lauder, Duns, and the lower reaches of the Ale. In most years males are as plentiful as females though none were found in the two wet seasons just referred to. Females of *R. punctulata*, Klug, were common at Chirnside in 1876, and one was taken that year at Longformacus. Two were obtained at Lauder in 1890, and in 1892 a male and several females were captured at Mellerstain, a male close to Lauder on 9th June, and two females at Spottiswoode the following day. Three females of *R. fulvipes*, Scop., were caught singly on the lower reaches of the Ale Water in May 1890, a male and two females separately at Carolside on 29th May, and several females at Abbey St Bathans on 20th June 1892. Females of *R. aucupariæ*, Klug, were recorded from Coldstream in 1878, and a single specimen from Eyemouth in 1879. Two were secured at Eccles in 1890, a male at Cowdenknowes on 25th May 1892, and a female at Earlston on 12th July 1925.

The specific distinctions in the genus *Tenthredopsis* are so imperfectly understood and so difficult to apply that I have only included in this list such species as have been determined by Konow himself. A female of *Tenthredopsis liturata*, Geoff., var. *cordata*, Fourc., was captured by the Whalplaw Burn in 1890, and two on 20th June 1892 at Abbey St Bathans. Three females of *T. tiliæ*, Fab., var. *inornata*, Knw., were taken at Duns in 1893, and one at Drygrange in 1903. Two females of *T. dorsivittata*, C., were obtained singly at Chirnside in 1890. Males of *T. dorsalis*, Lep., were collected at Carolside early in June 1875, and a female at Longformacus, and two at Cran-

shaws in 1876. A male and several females were secured at Thirlstane Castle on 8th June, and a female at Chirnside on 25th July 1892. Males and females of *T. campestris*, L., are plentiful and widely distributed throughout the woods of the county except when the spring has been unusually wet. Two males and a female of *T. fenestrata*, Knw., were captured at Allanton in 1878, two females at Duns on 15th July 1892, and a male at Drygrange in May 1905. Females of *T. tristior*, Knw., were found along the valley of the Leader in 1878, and two males that year at Cowdenknowes. Females occurred frequently about Lauder in 1890, and at Earlston and Spottiswoode in 1892, two males being obtained at the last-named locality on 9th June. Several males of *T. Thornleyi*, Knw., were caught about Earlston in the end of May 1875, and two females a few days later close to Lauder. Females were recorded from Chirnside in 1876, and a male and two females in 1878. In May 1890 females were fairly common about Duns, and in 1892 were plentiful about Chirnside. Several males were secured at Cowdenknowes in May 1903. *T. gibberosa*, Knw., is represented by a female taken at Coldstream in 1878, and two at Paxton House on 31st July 1892.

Males and females of *Pachyprotasis antennata*, Klug, were obtained in about equal numbers round Duns in 1875, and again in 1892. Occasional specimens have been taken at Mellerstain, Fogo, Chirnside, Paxton House, and West Gordon. Both sexes of *P. rapæ*, L., are generally distributed throughout the county. They are common locally, and in some years and districts surprisingly abundant—along the Tweed, for example, from Birgham to Ladykirk in 1877 and 1878, about Chirnside and Allanton in 1890, about Abbey St Bathans, Duns, and Ladykirk in 1892. On 9th July 1925 both sexes were evidently common round Earlston. Females of *Macrophya blanda*, Fab., were taken about Ladykirk in 1876, and a male and three females in 1878. Two females were obtained at Mertoun in 1889, and two males and several females at Corsbie on 6th June 1892. Females of *M. rustica*, L., were captured at Ladykirk in 1878. Two were taken at Chirnside in 1890 and one at Preston, one at Hirsell House, and three at Ayton in 1892. A male of *M. albicincta*, Schr., was found at Coldstream in 1878 and two females between Chirnside and Allanton in 1892.

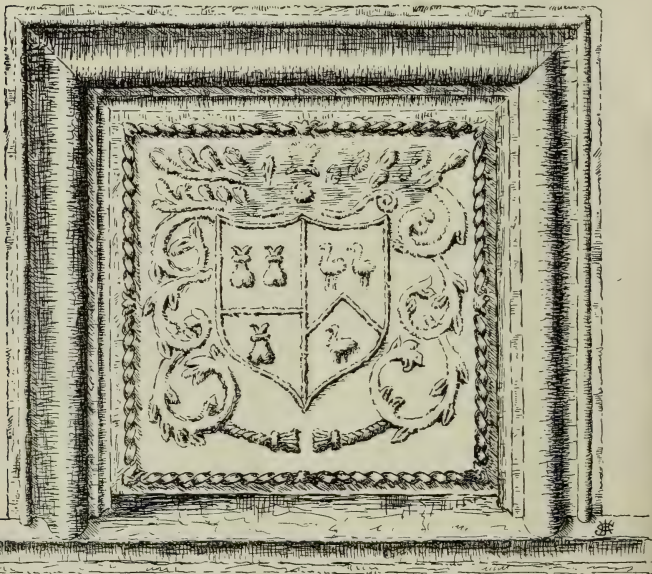
Allantus arcuatus, Foerst., is plentiful almost everywhere in a favourable season and has been captured on the summits of Crib Law, Hunt Law, and Cranshaws Hill. Males are of common occurrence, and in fine weather, at the beginning of the season, their numbers may amount to from one-third to one-half the numbers of the females. Females of *Tenthredella temula*, Scop., were obtained at Earlston and a male at Coldstream in 1877. On 26th May 1892 two males were taken at Earlston, and the following day a male and several females were secured at Carol-side. On 19th June that year females were common at Duns. *T. mesomela*, L., is generally distributed and usually common throughout the county. The sexes as a rule are about equally represented, but in June 1905, while males were plentiful at Dryburgh and Bemersyde, very few females were observed. A male of *T. olivacea*, Htg., was taken at Cowdenknowes about the beginning of June 1875. In 1877 three were captured at the top of Crib Law and one on the Nine Cairn Edge. In 1878 several females were collected at Duns. Males were nearly as common as females at Earlston in May 1890; in 1892 females were found by the Whalplaw Burn on 12th June and close to the junction of the Whitadder and the Tweed on 6th August. A solitary female was secured near Drygrange on 9th July 1925. Of *T. atra*, L., a male was captured at Duns in 1890 and a female at Abbey St Bathans on 22nd June 1892. Females of the var. *dispar*, Klug, along with a single male were taken at Chirnside in 1878. In 1890 females were common at Edrom and Nesbit, and two males were obtained between Chirnside and Allanton. A solitary female was found on the south side of Primrose Hill on 23rd June 1892. Both sexes of *T. livida*, L., were frequently collected at Cowdenknowes in June 1875, and females were common at Duns that same year. Two males were found among a number of females in a garden at Lauder in 1878. In 1892 females were common and males very scarce along the Leader valley. Solitary females have been procured at Preston, near Burnmouth, and at Paxton House. *T. velox*, Fab., is widespread and locally common. In 1876 males were in excess of females about Ladykirk, but the latter predominated the following year, and greatly so at Coldstream in 1878. Both sexes were freely taken at Chirnside, at Eccles, and sparingly at Earlston in 1890. In 1892 females were greatly in excess at

Duns and at Allanton. *T. ferruginea*, Schr., is widely distributed through the woods of the county, and in some years, notably 1878 and 1892, was locally abundant, but so far no male has been recorded. Both sexes of *T. balteata*, Klug, were much in evidence about Chirnside in 1876 and in 1890. Females were captured near Dryburgh and at Coldstream in 1878, and at Preston, Allanton, and Birgham in 1892. Two females were secured between Dryburgh and Bemersyde on 10th July 1925.

ON AN HERALDIC PANEL AT ROSEDEN.

By JAMES HEWAT CRAW, F.S.A.Scot.

ON the occasion of the Club's visit to Ilderton reference was made to an heraldic panel at Roseden, about a mile south-



PANEL ABOVE DOOR OF FARMHOUSE, ROSEDEN.

east of Ilderton. This panel is built into the wall of the farmhouse above the front door. It is 24 inches square, and bears a shield of arms with a mantling of foliaceous scroll-work and a cable moulding round the edge. The carving is somewhat

rude and the panel is considerably weathered; it dates from the latter half of the seventeenth century.

The shield bears: *dexter*, parted *per fess*, three water budgets (for Ilderton); *sinister*, parted *per chevron*, three birds (for Crow).

An account of the family of Ilderton has been given by the late Mr J. C. Hodgson.* It has been associated with the lands of Ilderton from very early times, being mentioned in the twelfth and thirteenth centuries. The suggestion has even been made that it may be descended from Hildemar, the prefect of King Egfrid and host of St Cuthbert in the seventh century.

The shield doubtless commemorates the marriage of George Ilderton of Ilderton, and Margaret, daughter of — Crow of Ashington. The bond of marriage is dated 27th Jan. 1665/6.

Crow of Ashington was a cadet of the East Reston branch of the Berwickshire family of Craw.

* *Arch. Ael.*, 3rd ser., vol. vii.

THE MOSSES AND HEPATICS OF BERWICKSHIRE AND NORTH NORTHUMBERLAND.

By J. B. DUNCAN.

It is now difficult to make additions to the moss flora of these two vice-counties.

The following short list contains all that have been added during 1927 and includes several interesting plants.

Campylostelium saxicola is a rare species not hitherto noted in the eastern border counties.

Oligotrichum incurvum from Harelaw, Duns, a rather unexpected addition for Berwickshire, is rarely found except in the immediate neighbourhood of hills of quite considerable elevation.

Ditrichum tenuifolium, also from the Duns district, is a rare and also an inconspicuous and easily overlooked plant.

On old walls at Longformacus, *Encalypta streptocarpa* was gathered in good fruiting condition; in this state it is extremely rare in Britain.

During the autumn careful search resulted in the finding of *Dicranum spurium* on Lyham Moor, where this rare moss was discovered by W. B. Boyd in 1869.

Dicranum Bergeri, another very rare species, still flourishes near Graden (Roxburghshire), and was first found there by Boyd about 1870.

Amongst hepatics, *Aneura palmata* has not before been recorded from the East Lowlands, while the beautiful little maritime species *Petalophyllum Ralfsii* is exceedingly rare on the east coast of England.

MOSSES.

68 = Northumberland (North). 81 = Berwickshire.

Sphagnum rigidum Schp.—81, Lamberton Moor.

S. subsecundum Nees.—68, Dod Law.

S. acutifolium var. *quinquefarium* *Lindb.*—68, Craggside, Rothbury. (Stevens.)

Oligotrichum hercynicum *Lam.*—81, Harelaw, Duns.

Polytrichum gracile *Dicks.*—81, moor near Dowlaw.

Ditrichum tenuifolium *Lindb.*—68, Biddlestone, Rothbury. (Stevens.)
—81, sandy bank, woods near Duns Castle.

Dichodontium pellucidum var. *compactum* *Schp.*—81, Wester Burn, Dye Water.

Blindia acuta *B. & S.*—81, on stones in boggy ground, Dowlaw Burn.

Dicranum Bonjeani var. *rugifolium* *Bosw.*—58, Ross Links.

Fissidens osmundoides *Hedw.*—81, bog near Crosslaw, Coldingham.

Campylostelium saxicola *B. & S.*—68, Lyham Burn.

Tortula angustata *Wils.*—68, sandstone by the Till below Etal.

Barbula recurvifolia *Schp.*—68, Ross Links.

Encalypta streptocarpa *Hedw.*—81, old walls, Longformacus (cum fructu).

Philonotis caespitosa *Wils.*—81, wet rock on sea banks at Lamberton.

Webera annotina *Schwaeg.*—81, Longformacus.

Bryum atropurpureum var. *gracilentum* *Tayl.*—81, Horndean; near Mordington.

Leskea polycarpa *Ehrh.*—68, by the Till, Twizel; Norham dean; Alnwick.—81, by the Tweed at Horndean.

Brachythecium salebrosum var. *palustre* *Schp.*—81, wet ground near Lumsdaine.

Eurhynchium rusciforme var. *atlanticum* *Brid.*—68, Roddam Burn.

Plagiothecium denticulatum var. *aptychus* *Spruce.*—68, Waren Burn.

Hypnum fluitans var. *gracile* *Boul.*—68, Chatton Park Hill.

H. fluitans var. *Jeanbernati* *Ren.*—68 Lyham Moor.

H. exannulatum var. *falcifolium* *Ren.*—81, moor near Lumsdaine.

H. imponens *Hedw.*—81, Drakemire.

H. molluscum var. *condensatum* *Schp.*—81, moor near Lumsdaine.

HEPATICS.

Aneura palmata (*Hedw.*) *Dum.*—68, on decaying log in boggy ground, Waren Burn.

Petalophyllum Ralfsii (*Wils.*) *Gottsche*—68, Ross Links.

Haplozia riparia var. *rivularis* *Bern.*—68, bed of stream, Lucker Moor.

Lophozia Muelleri (*Nees*) *Dum.*—81, boggy ground by Dowlaw Burn.

Blepharostoma trichophyllum (*L.*) *Dum.*—68, boulders by Lyham Burn.

THE MEETING OF THE BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE AT OXFORD, IN 1926.*

By GEORGE GREY BUTLER, M.A.

OUR Berwickshire Naturalists' Club has long enjoyed the friendship of another Society, of equal age and of like aims, which has a large roll of membership, with a field of inquiry covering not only the habitable world but even ethereal space.

As your delegate to the annual meeting of the British Association in August 1926, I offer a few notes of some of the happenings which marked that busy and memorable week.

Oxford, both town and country, showed splendidly, and the calm summer weather was at its best. The more than three thousand visitors, many of them from over seas, seemed to feel amid their historic and academic surroundings the influence of a kindly Genius Loci, enhanced by a cordial Civic and University welcome.

The Association had already met four times in Oxford, in the years 1832, 1847, 1860, and 1894. This fifth gathering in 1926 has marked a decided change in the relations between men of Science and of the Classics, a happy growth of goodwill and understanding from one Oxford meeting to the next. This was very clearly put by the Prince of Wales in his inaugural address to the audience which crowded the Sheldonian Theatre. His predecessor had in 1925, he reminded us, alluded to a certain feeling of dumb hostility towards Science and its works, a feeling which still survives, but has ceased to be vocal, as it was notably in 1832. In that year the Association had been invited to meet in Oxford, but a strong body of opinion resented the recognition of Science by the University when carried so

* The Editor regrets that he was unable to insert this interesting paper in last year's issue of the Club's History.

far as the conferring of honorary degrees upon four of the distinguished visitors. The famous Keble, moved for once to anger, referred to those who were thus honoured as a "hodge-podge of philosophers." They were David Brewster, John Dalton, Robert Brown, and Michael Faraday. In view of the imperishable work achieved by each of the four in their lifetime, "Oxford," as the Prince said, "was not dishonoured in the hodge-podge of philosophers whom she recognised in 1832—and it surely need be no matter for regret if Science is taking a place in the University side by side with that occupied by the Humanities."

A more generous welcome, indeed, was accorded by the University when, concurrently with their attendance at this annual meeting of 1926, eleven distinguished men, six of British and five of foreign nationality, were granted the honorary degree of Doctor of Science.

The manifold nature of the Association's work, subdivided as usual among thirteen separate sections, was remarkably free from the watertight compartment character. Several speakers deprecated over-specialisation in their own (or other) branches of science, and there were few who did not break through their fences into the neighbouring fields. Of all the sections, that of Anthropology had the best right of handling the Science of Man; but others were not backward. There was hardly a discourse into which a human thread was not woven. Evolution, like the "Humanities," found everywhere an open door, while Section L, nominally devoted to Education, treated itself to a very wide circuit. The title chosen by each president for his sectional address often showed great latitude, indicating a general interplay among the several branches of Science.

Thus in the Section of Zoology (D) its President, Professor Graham Kerr, having named his subject, "Biology and the Training of the Citizen," spoke expansively as follows: "In my own town of Glasgow I often wonder how much the average child is taught regarding the two great events of the world's history which took place in that city: James Watt's improvement in the steam-engine, and Joseph Lister's inauguration of antiseptic surgery."

Again, under Geography (E), the President, describing Tropical Africa, remarked that Anthropology must now include a study

of native law and customs, methods of agriculture, beliefs, and languages.

In his interesting address to the Education Section, Sir Thomas Holland spoke feelingly of the value of "Humanism" in science teaching. He held that the scientific developments which followed the classical Renaissance were mainly the product of intellectual activities quickened by the rediscovery of the long-buried wisdom, especially of the Greeks, their art, their religion, and their science. "What would otherwise have been but slow combustion developed, because of the classics, with the speed of an explosion. Greek literature acted on mediæval scholasticism like nitric acid on combustible cellulose: cotton was converted into gun-cotton."

In the Section of Agriculture (M), the President Sir Daniel Hall, discussing the relation between cultivated area and population, pointed out that to compensate for a non-expanding acreage in meeting the world's food-supply, there must be a tuning-up of methods such as will intensify production; and this is practicable only by continued scientific research.

Professor H. F. Osborn, President of the American Museum of Natural History, gave a lecture before the Section of Zoology which attracted a large audience, densely packed. He began by the remark that Darwin's *species* stood apart like isolated mountain-peaks, whereas to-day living species are often comparable to mountain chains completely connected by ridges known as intergradations. In 1926 the known species of mammals, birds, reptiles, and fishes outnumbered many times those known in 1827.

Darwin himself, writing in 1859, was keenly aware of the small number of fossil species known up to that time. "That our own collections are imperfect," he wrote, "is admitted by everyone. Only a small portion of the earth has been geologically explored, and no part with sufficient care, as the important discoveries made every year in Europe prove."

Osborn reviewed the distribution of animal life over the world, and showed that the results of zoological and geological research are entirely concordant and supplement each other; and added that it is not so much a question of the *number* of fossil species now known, as the *linkage* reaching back over hundreds of thousands if not millions of years.

As President of the Botanical Section (K), Dr F. O. Bower, Regius Professor of Botany in Glasgow, speaking in the same sense as Professor Osborn, said that the study of heritable variation in plants need not be restricted to the time-limits of a *few years'* experiments, with possibly negative results, when the whole wide latitude of geological time has left its historical record of evolution. He also drew a moral from the lives of the four protagonists of 1860, Darwin, Wallace, Hooker, and Huxley, who at that Oxford meeting were in the clash of arms over the *Origin of Species*. These four, he said, "were all equipped for the battle from the armoury of experience in the great world. The theory of evolution was born and bred of foreign travel, and upon foreign travel quite as much as upon quiet work at home its future still depends." This allusion to foreign travel connects itself with the value of outdoor life, and may be taken alongside of some of Sir Thomas Holland's warnings. The latter, when dwelling on the danger of University Scholarships leading to premature specialisation, reminded teachers of science that their students are not wanted only as experts in the laboratory or workshop, but that they must face relations with other human beings, with whom they cannot communicate in technical terms alone; they want the humanities, which are by no means the monopoly of the classical scholar. Some of the Honour Schools in Science, he said, produce a graduate in Chemistry or Physics who is blind for all his days to what lies before him out of doors, where he ought to spend much, if not most, of his life. Huxley believed "that every man ought to know something of the history and origin of the features of the only world on which he will live in human form."

The value of outdoor observation and work is firmly recognised in our own Club life, which owes its character and principal charm to the monthly excursions: the outdoor side of the British Association meeting was very well developed, as will be briefly noted presently.

An Evening Discourse was given in the Town Hall on 9th August by Professor Osborn on "Discoveries in the Gobi Desert" by the latest American Museum Expedition. He put before his large audience what was truly a chapter of most ancient history revealed by the searchlight of most modern

science. The difficulties to be faced by the expedition were, generally, the isolation of Mongolia, coupled with the want of transport, and particularly the severe climate and scarcity of food in the Gobi Desert. The solution of the problem was mainly due to a bold use of motor-cars. Dr Roy Chapman Andrews led the expedition, with a scientific staff of experts, twelve American and two British, and a body of twenty-six specially trained assistants, part Chinese and part Mongols. This group of men, with their seven motor-cars and a caravan of 125 camels, worked in the field at high tension, with never a rest, for five months. The whole adventure resembles a story from the Arabian Nights, and it has the cinematograph to make it real. In living movement upon the large screen in the Town Hall were seen endless trains of plodding camels winding about among sand-dunes and low rocky sierras, or heavily packed automobiles rapidly rolling and lurching along, or again a party of excavators squatting at their work over an exciting "find," such as that of the now famous dinosaur eggs which first aroused so great a popular interest in the expedition.

The lecturer, who had himself done much to foster these explorations, gave his own summary of the broader aspects of the work achieved. "These discoveries," he said, "have established Mongolia as a treasure-house of the life-history of the earth from the close of the Jurassic time onward. The staff of the expedition has interpreted one of the most desert regions of the entire earth by the twin sciences of Palæontology and Geology, and the wilderness of Mongolia now blossoms forth with its glorious story of prehistoric life as the homeland of the greater number of terrestrial vertebrates."

* * * * *

Section E.

Science as such must involve contact with phenomena, and not mere discourse. Great is the call of the outdoor life. The Open Air has been the true foster-mother of many an art and many a science.

Who would look for poetic or artistic feeling in a discourse on Geography? Yet who that listened to Dr Vaughan Cornish in the Geographical Section was not charmed by the unexpected?

Here a travelled geographer of tried courage and experience gave us his matured thoughts on "Form and Pattern in Scenery," ranging over earth, sea, and sky. His fine perception and inborn love of nature, expressing themselves in choice language, added a bright halo to his accurate science. Here may well be recorded one nocturnal view which he pictures from the deck of a ship :

"The transcendent distance of the stars does away with the perspective crowding towards the horizon which affects clouds, and therefore steepens the vault of the sky. When the young moon sheds sufficient light to show the waves but not enough to quench the stars, the watery plain takes on a look of greater size, and the constellations appear to be spread over an ampler dome ; and this is perhaps the finest of all views in which we can see other worlds without losing sight of our own."

Among the Sciences, Psychology (Section J) may seem to some of us too youthful to find a place. But as to its fitness to appear among the Humanities, it clearly should stand in the very centre of them. Take, for example, Dr Maxwell Garnett's address to this section on "The Psychology of Patriotism." His tone was lofty, his language clear and cogent. The address appealed to Humanity at large, to resist the Demon of Destructiveness that stalked abroad in warfare. Printed words are inadequate to convey the deep impression made upon his audience by the sincerity of the speaker in his comparatively short address. A few characteristic phrases may, however, be quoted. "It is good for the human race that its most important divisions should be psychological, the patriotism of each being subordinate to a unity, a spiritual commonwealth of nations." "The only way to harmony is to have a *central supreme purpose*." "War can destroy in a few days the fruit of years of labour and research." "The central purposes of men and women must be in close relation with the central purpose of the universe." "Patriotism must cease to be the Differentiator and become the Integrator of the Nations."

At the Conference of Delegates Sir John Russell spoke in favour of Regional Survey work, or what may be described as local geography based on humanity ; as he put it, "the survey of a district as an environment for human beings, an account of its physical features, the character of its flora and fauna, culminating in a study of the way in which they affect human

life and activity." He urged that for students a regional survey provides a valuable record of the countryside, past and present. In school life it provides the teacher with material of unparalleled educational value, and of great attraction for the child. More than that, it awakens an interest in the countryside which one hopes will be followed by a desire to keep the best of what we have, for the countryside of our native land is rich beyond all others in human and artistic interest.

A practical illustration of such "local lore surveys" was given under Section H (Anthropology) by Miss C. V. Butler, who arranged a small exhibition of the material so far collected, by a group of village schools and their teachers, mostly in remote parts of Oxfordshire; this display included six-inch maps traced from the Ordnance Survey, and filled in by the students so as to show field names, crops, contours, and water-supply, farm stock, and means of transit; also note-books recording direct observation and inquiry in regard to local history, industries, and customs, making altogether what may be called a local Domesday Survey fresh from the soil.

Oxford City possesses from olden time an advantageous site, as being the centre from which roads diverge in many directions, and usefully serve a tract of country whose area is wide, but whose shape differs considerably from that of the Oxford County. The name "Region" better fits this natural area than that of "County," whose artificial limits make an irregular and unsymmetrical figure. The Oxford Region, then, some 60 miles by 30 in extent, has on one side the Cotswolds and on the other the Chiltern Hills, and between them the stretch of undulating lowland with its winding river-valleys.

As somewhat of a relief to indoor discussion, outdoor observation was maintained by twenty-nine organised excursions, each with an average attendance of sixty members; the mode of transit was by car, or omnibus, on rail, or on foot. Some of the journeys were long ones, *e.g.* to Reading, Newbury, Tring, and Swindon, about 25 miles each, and to Birdlip and Stratford-on-Avon, each 36 miles from Oxford. The furthest points of the excursions, if joined by lines upon a map, enclose a polygon of some 1500 square miles in area. Within this, visits were made to the Goring Gap, Aylesbury, the Cotswold Hills, Bibury, reputed the most beautiful village in England, Cumnor, Shot-

over, and the Chiltern Beech-woods; and the Oxford Region with its wide landscapes and its charming rural retreats was aided and enhanced by the wonderful weather.

A memorable excursion was one which took place close to Oxford city, at Portmeadow, by the river side. Technically it was under the auspices of Section G, or Engineering, but no one was conscious of that. It was a most inspiring and splendid display, made by the Royal Air Force. A row of aeroplanes rising together, away from the spectators, in steady flight, with the shimmer of white wings under the glint of the sun, looked like a band of stately waterfowl. Complicated movements overhead, and all around the meadow, were controlled by an invisible chief who gave orders by radio-telephony, obeyed with the prompt accuracy which distinguishes the R.A.F.

One gathering, partly indoor and partly outdoor, not held under any Section, but in response to hospitable invitation of the Duke of Marlborough, was the occasion of a restful afternoon at Blenheim. Warm sunshine pervaded everything; both Park and Palace were seen at their best. The splendid trees, the acres of smooth green turf, the winding lake sheltered by well-wooded slopes, led the eye around to the terraces of stone steps, crowned by the spacious mansion which commanded all. The outer prospect instilled a sense of grand serenity and abiding peace, while war's mementoes remaining within the Palace marked the home of the greatest soldier of his day.

REPORT OF MEETING OF THE BRITISH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE. LEEDS 1927.

By JOHN BISHOP.

HAVING had the honour of attending as your delegate the Meeting of the British Association for the Advancement of Science, held this year at the city of Leeds, I have much pleasure in submitting to you herewith a few notes and observations regarding some of the more important events which took place on that memorable occasion.

Thanks largely to the generosity and kindly help afforded by citizens and authorities of that important centre, the meetings passed off very pleasantly and proved a great success.

Yorkshire hospitality has, I believe, almost become proverbial, and the members of the Association certainly had ample experience of it during their stay in the city.

Among the most notable incidents of that interesting week may be mentioned : a Reception by the Lord Mayor and Lady Mayoress of Leeds, honoured by the presence of H.R.H. The Princess Mary and the Right Honourable Viscount Lascelles, also a Reception by the University of Leeds. Each of these functions passed off splendidly, and was attended by a very large concourse of members, presenting a brilliant and striking spectacle.

The city of Leeds seems to have a reputation as a great musical centre, and its capabilities in this direction were demonstrated in a grand evening concert at which the Leeds Choral Union kindly entertained the members of the British Association. The main item on the programme was a rendering of Elgar's "Dream of Gerontius," which, under the able conductorship of Sir Henry Coward, was given in magnificent style, and held the vast audience spell-bound.

Demonstrations were also given of the three latest marvels of modern science, viz., Television, Noctovision, and the Phonovisor.

By Television is meant the transmission of vision by electricity. Noctovision is vision in darkness by means of infra-red rays, and the Phonovisor is an apparatus by which moving images can be recorded on and reproduced from a phonograph record in the same manner as sound.

At one of these demonstrations the image of Sir Oliver Lodge, who was seated in a totally dark room, was seen and recognised by the members present on a screen in a different apartment.

Other items of considerable interest must be passed over, but I would like to give a brief account of the most noteworthy event in all the proceedings, viz., the Inaugural General Meeting, held in the great Majestic Cinema, which was attended by an immense and evidently keenly interested audience. Sir Oliver Lodge, who took the chair, read a message from the retiring President, H.R.H. the Prince of Wales—then in Canada—introducing his successor, Professor Sir Arthur Keith, who thereupon assumed the Presidency and delivered his address, the subject being, “Darwin’s Theory of Man’s Descent as it stands To-day.”

It is interesting to note that, as Sir Arthur Keith pointed out, “It was in Leeds, at a meeting of the British Association held on 24th September 1858—sixty-nine years ago—that was fired the first verbal shot of that long and bitter strife, which ended in the overthrow of those who defended the Biblical account of man’s creation, and in a victory for Darwin.”

The President on that occasion was Sir Richard Owen, the first anatomist of his age, whose sympathies were with the old traditional view of man’s origin and his entire separation from the rest of creation. Although he had previously, in comparing the structure of man and the higher apes, pointed out their practical identity and spoken of their “all-pervading similitude of structure,” he seems afterwards to have recanted somewhat, seeking instead to emphasise the difference between them, asserting that man had certain structures in his brain which were not to be found in the brains of the higher apes, and that it was necessary to assign to mankind an altogether separate order in the animal kingdom.

But among the audience on that occasion was a young scientist, Thomas Henry Huxley, whose fame was soon to overshadow that of Owen, and who entirely dissented from that view.

When Owen subsequently repeated his statement, Huxley met it with a direct and emphatic denial, promising at the same time to produce evidence in due course. This he did, and, later, clinched the argument by publishing a work entitled *Man's Place in Nature*, in which the facts demolishing Owen's contention, and proving the close structural affinities between man and the higher apes, were stated with that remarkable clearness and cogency which characterised all Huxley's writings.

As Sir Arthur Keith remarked, "It settled for all time that man's rightful position is among the Primates, and that his nearest living kin are the anthropoid apes."

For the sake of clearness let me here mention a few elementary facts.

From the earliest days of the science of life two theories have been current as to the origin of the differences between the several kinds of living organisms. One, known as the "Special Creation Theory," maintains the fixity and independence of species, and asserts that each of the numerous species of animals or plants which exist to-day, or have existed in the past, was brought into existence by a distinct and separate act of creation; though as to the *modus operandi* of the process it offers no explanation, evidently considering the traditional *ipse dixit* a sufficient justification for its acceptance.

The other, known as the "Development" or Evolution Theory, asserts the modifiability and non-fixity of species, and holds that all the species of living organisms which exist to-day are the modified descendants of those which preceded them, and those of still earlier species; in fact, that the whole world of life past and present represents as it were a great tree of life, which had its roots in an unconceivably remote past, gradually growing upwards, branching in various directions, and increasing in variety and complexity with the progress of geological time, the presently existing forms representing only the terminal and often widely separated twigs of that wonderful tree. This theory emphasises the unity and continuity of all life, the kinship of the highest with the lowest,

“ A sacred kinship I would not forego,
Binds me to all that breathes.”

When in 1831 the young naturalist, Charles Darwin, set out on that memorable voyage on the warship *Beagle*, his mind was under the sway of the old traditional and then commonly accepted view of the special creation and fixity of species. But during that long five years' voyage he encountered innumerable new and strange facts, which did not seem to fit in with the current creationist views. His extraordinary powers of observation and reasoning were brought to bear upon these, with the result that he was led to a questioning of the accepted view; and after long years of patient and laborious observation and reflection, there was published in 1859 his famous epoch-making book, *The Origin of Species*, in which not only were the evidences for the evolutionary view expounded with remarkable force and clearness, but an attempt made to show that in the facts of variation, heredity, and the struggle for existence were to be found causes adequate to account for the origin of new species.

This was the famous theory of Natural Selection. Twelve years later appeared his other work, *The Descent of Man*, in which the same evolutionary principles, supplemented by the theory of Sexual Selection, were applied to explain the origin of man, and to prove that—to quote his own words—“ man still bears in his bodily frame the indelible stamp of his lowly origin.”

The evolutionary theory of man's origin necessarily involves his descent from some remote ape-like stock, not—as some erroneously imagine—from any existing species of ape.

The human and the anthropoid stocks represent two separate and divergent branches of the tree of life: one a degenerate and descending branch tending towards extinction, the other—to which we ourselves belong—an ascending and progressive branch with potentialities of unlimited progress.

How does this theory stand to-day? was the question propounded and answered by Sir Arthur Keith. “ Fifty-six years,” he says, “ have come and gone since that history was written; an enormous body of new evidence has poured in upon us. We are now able to fill in many pages which Darwin had per-

force to leave blank, and we have found it necessary to alter details in the narrative, but the fundamentals of Darwin's outline of man's history remain unshaken. Nay, so strong has his position become, that I am convinced that it can never be shaken."

Speaking of Darwin's conviction that the differences between the mentality of man and ape, vast though they be, are nevertheless differences of degree only, not of kind, Sir Arthur Keith said: "Prolonged researches made by modern psychologists have but verified and extended Darwin's conclusions. No matter what line of evidence we elect to follow—evidence gathered by anatomists, by embryologists, by physiologists, or by psychologists—we reach the conviction that man's brain has been evolved from that of an anthropoid ape, and that in the process no new structure has been introduced and no new or strange faculty interpolated."

As reference was made in the course of the address to that memorable encounter in 1860 between the Bishop of Oxford and Professor Huxley, it may be of interest, as illustrating the contrast between the attitude to such questions of the modern churchman and that of the churchman in the early days of Darwinism, to quote a passage from a sermon delivered shortly after the recent Leeds meeting, by one of the most learned and distinguished dignitaries of the Church of England, viz., the Bishop of Birmingham.

"To-day there was," he said, "amongst competent men of science, unanimous agreement that man had been evolved from an ape-like stock." Darwin's assertion had stood the test of more than half a century of critical examination. "The human mind," he added, "has been derived by evolution from the intelligence of lower animals, just as the human body has been evolved from the body of some primitive vertebrate. In fact, man was not a being who had fallen from an ideal state of perfect innocence; he was an animal slowly gaining spiritual understanding, and with the gain rising far above his distant ancestors."

Sir Arthur Keith went on to refer to the striking confirmation of the Darwinian view which had been furnished by the discoveries in recent years of fossil remains of man and of his stone implements, carrying back his history as far as the beginning

of the Pleistocene Period, at least 200,000 years ago, nay, even into the still earlier Pliocene.

The best known of these fossil species of man is that known as Neanderthal Man, from Neanderthal in Germany, where the first remains were found. Subsequently other remains were discovered in Germany, Belgium, France, etc., so that his physical characters are well known, and Professor Elliot Smith has furnished us with a graphic and clear-cut account of them.

“His short, thick-set and coarsely-built body was carried in a half-stooping slouch, upon short, powerful and half-flexed legs of peculiarly ungraceful form. His thick neck sloped forward from the broad shoulders to support the massive, flattened head, which protruded forward so as to form an unbroken curve of neck and back in place of the alternation of curves which is one of the graces of the truly erect *Homo sapiens*. The heavy overhanging eyebrow and retreating forehead, the great coarse face with its large eye-sockets, broad nose and receding chin, combined to complete the picture of unattractiveness, which it is more probable than not was still further emphasized by a shaggy covering of hair over most of the body. The arms were relatively short, and the exceptionally large hands lacked the delicacy and the nicely balanced co-operation of thumb and fingers which is regarded as one of the most distinctive of human characteristics.”

In summing up the evidence from Palæontology, the British Museum *Guide to the Fossil Remains of Man* states—in conformity with Sir Arthur Keith's contention—that “the further human remains are traced back in geological time, the more marks they retain of an ape-like ancestry. They suggest a gradual approach to a primitive forest animal with an overgrown brain, which was destined to begin a fundamentally new departure in organic evolution.”

Among other facts cited to prove man's close affinity with the anthropoids were the blood-test, discovered by Professor Nuttall of Cambridge, whereby the degrees of affinity among animals can be determined by comparing the reactions of their blood. The blood of man and that of the great anthropoids were found to give almost the same reactions.

Again, mankind and the anthropoids are susceptible to the same infections and diseases. Their brains are so much alike

that experiments on the brains of apes have yielded results which proved of great use in surgery. Their embryological processes present an extraordinary parallelism. The same vestigial structures or "Evolutionary postmarks" are found in both. There are extraordinary resemblances in behaviour and emotion. The anthropoid mother fondles, nurses, and suckles her young in the human manner. "In what way," said Sir Arthur Keith, "can such a myriad of coincidences be explained except by presuming a common ancestry for both?"

But admitting the fact of evolution as established by an overwhelming consensus of evidence, there remains the problem of accounting for the process and explaining the factors at work in it. The potency of the Darwinian principle of natural selection—accepted by Sir Arthur Keith—seems now to be generally recognised. Indeed, granting the facts of variation, heredity, and the struggle for existence, its inevitableness seems apparent, but numerous problems still remain for solution.

An interesting comparison was drawn between the evolution of living organisms and motor cars. "The evolution of new types of man or of ape," said Sir Arthur, "is one thing, and the evolution of new types of motor cars is another; yet for the purposes of clear thinking it will repay us to use the one example to illustrate the other. In the evolution of motor vehicles Darwin's law of selection has prevailed; there has been severe competition, and the types which have answered best to the needs and tastes of the public have survived. The public has selected on two grounds—first for utility, thus illustrating Darwin's law of natural selection, and secondly because of appearance sake; for, as most people know, a new car has to satisfy not only the utilitarian demands of its prospective master but also the æsthetic tastes of its prospective mistress, therein illustrating Darwin's second law—the law of sexual selection. That selection, both utilitarian and æsthetic, is producing an effect on modern races of mankind and in surviving kinds of ape, as Darwin supposed, cannot well be questioned. In recent centuries the interracial competition amongst men for the arable lands of the world is keener than in any known period of human history."

In the factory and in the designing office we may obtain a glimpse of the machinery involved in the construction of cars

and of the evolution of new types of car; but when we seek to enter Nature's great laboratory and learn something of her ways in the construction and evolution of living organisms, the inadequacy of the simile just used becomes apparent and we realise how different the two processes really are.

Some idea of the intricacies of structure and of the marvellous processes at work within the tiny protoplasmic cell which forms the starting-point of the development of the living organism, whether man, or ape, or worm, was given in one of the evening discourses by Dr Crew on "The Germ-plasm and its Architecture." In the nucleus of the living cell we see those wonderful protoplasmic bodies known as the chromosomes, now recognised as the bearers of the hereditary qualities of the organism.

The extraordinary and purposelike behaviour of these chromosomes, their regular and orderly movements, divisions, separations and recombinations as the living cell divides to give rise to other cells, and these again to others, to build up the body, form one of the most wonderful facts revealed by the intensive microscopic study of the living cell in recent years. They also help to explain some of the laws of heredity as discovered by the famous Abbot of Brönn, Gregor Mendel, whose experiments and observations, long neglected, are now receiving so much attention. I had, on a previous occasion, an opportunity of seeing a demonstration of some of these wonderful facts in a very beautiful and skilfully mounted series of microscopic preparations.

Another discovery of recent times, which promises to shed light on some of the as yet unsolved problems of evolution, was mentioned in the Presidential Address, viz., the so-called "hormones" or secretions of the ductless glands: the pituitary, thyroid, parathyroid, adrenals, etc.

These glands, at one time regarded as of little importance, and whose functions were until recently unknown, are now proved by the researches of Professor Schafer and others to be of vast importance in the economy of the body. They form a regulating and co-ordinating system, securing the harmonious working of the various and widely separated parts of the organism. While the nervous system may be compared with the telegraphic system of a country, the ductless glands may be regarded as representing the postal system, the hor-

mones being the missives which are dispatched from one cell-community to another in the circulating blood, and help to keep the various bodily organs in touch with each other and so secure their concerted action. "Clearly," said Sir Arthur, "the discovery of this ancient and intricate system opens up fresh vistas to the student of man's evolution. How Darwin would have welcomed this discovery! It would have given him a rational explanation to so many of his unsolved puzzles, including that of correlated variations."

In re-affirming, at the close of the address, his conviction of the truth of the Darwinian Theory of man's origin, Sir Arthur Keith declared himself to be speaking but as foreman of the jury,—“a jury which has been empanelled from men who have devoted a lifetime to weighing the evidence.”

A vote of thanks to the President was proposed by the veteran scientist and Darwinist, the Hon. Professor Sir William Boyd Dawkins, now in his ninetieth year, who at a subsequent meeting discoursed on “The Place of Man in the Tertiary Period.”

In his reply to the vote of thanks Sir Arthur Keith, at the request of the Council of the British Association, made an appeal for the preservation of Darwin's house at Down. A response was quickly forthcoming. Next morning came a telegram from Mr G. Buckston Browne offering to purchase Down House for the nation, and to endow it so that it would be preserved as it was when Darwin lived in it. The Council accepted the offer and resolved that this act of generosity should be known for all time as the “Buckston Browne Gift to the Nation.”

The Presidential Address, stating the facts from the point of view only of the anatomist and anthropologist, might to some appear cold, depressing and uninspiring, but, as Professor J. Arthur Thomson has pointed out, the evolutionist view has a gospel for man. To one who has the imagination to conceive something of the real wonder and mystery of life, of its amazing variety and complexity, and of its marvellous unfolding throughout the ages, it may well seem not a degradation but an unspeakable exaltation to feel oneself occupying, as it were, a position at the very crown and apex of creation; and the possibilities of unlimited progress—not only material, but moral and spiritual—which such a view holds out may well

fill the mind with a serene and lofty hope. "It doth not yet appear what we shall be."

The interest and importance of the President's Address has led me to assign to it a greater amount of space in this report than I had originally intended, and other items which seemed well worthy of mention will therefore have to be omitted.

APPOINTMENT OF SECRETARY.

The Committee elected at the last business meeting to deal with the question of the Secretaryship, have been fortunate in securing the services of Miss Mary Isabel Hope, Wide Open, Morebattle, who became a Member of the Club in 1913.

BERWICKSHIRE NATURALISTS' CLUB LIBRARY.

On 14th January 1928 the literature owned by the Club was taken from the Museum to 4 Silver Street, Berwick-on-Tweed. The new premises are opposite the A and B Garage, and immediately above the shop occupied by Messrs Grant & Evans, plumbers. The keys are kept by Messrs Grant & Evans, and can be obtained by Club Members between the hours of 10 a.m. and 5 p.m.

A PHASE OF BORDER HISTORY.

J. LINDSAY HILSON.

THERE is a mine of material of associations with bygone events which warrants a further examination with the view of trying to extract from the mass what may bring to the observation of present-day readers an idea of the mode of life prevalent in the Border District a century or two ago.

The names of Ker, Douglas, Elliot, Armstrong, Bell, Johnston, Turnbull, and Scott, or, to give some of their nicknames, The Windy Duke, Jock's Willie, The Bender, Sandy's Ringan, Ill Hob, Mirk Hob, Clem the Crown, Red Adie, Red Martin, Lang Andro, are familiar in the literature of the Borders, and their deeds of prowess, whether in their country's cause or when fighting for their own hand, testify in an outstanding way that "might" on some occasions stood them in good stead. The Border district required the guidance of a firm hand, and the post of Warden of the Middle Marches was certainly no sinecure. One constantly reads of the thieving qualities of different families of ill-doers caught with their ill-gotten gains, and, when involved in the meshes of the law, finding some excuse, promising to make amends, which generally resulted in a resumption of their old practices as soon as they could. About 1578 we find stringent measures were adopted by the Lord Treasurer Ruthven for maintaining the law's authority on the Borders. In order to raise the funds for the payment of the force employed, a special tax was imposed, but this at a later date had to be withdrawn, as it was found to be unconstitutional. James VI. visited Jedburgh in 1592 towards the end of the year, and from there different orders bearing on the Border question were considered. In fact, for the next year or two measures of repression were the order of the day, from which we can see that if the spirit of lawlessness was still abroad, the authorities were just as determined to quell any disturbances. About this time instructions

were given to Sir Robert Ker, "apparent of Cessfurde," who was acting as Warden of the Middle March, that he was to be "verie cairfull and dilligent," during the absence of the King in the North, and to see that peace was maintained between the two countries. Orders were issued that all the men between sixteen and sixty were to be enrolled, and a special charge was given to the inhabitants of Jedburgh to assist the Warden, which shows that the Burghers of that date could be depended upon to give good account of their services. It may be noted here that about this period the provost of Jedburgh was Sir Andro Ker of Phairnyhirst, and the Bailies were Adam Rutherfurde, George Moscrop, and Thomas Kirktown, while Mr Johnne Abirnethy was "minister at the kirk of Jedburgh." As minister he occasionally had difficulty in recovering his stipend and at times it was necessary to take out letters of caption. He did so in 1612 against the following, for neglecting to pay, "each of them his own part, the vicarage dues of Jedburgh—James Kerr of Linthollie, 6 lambs, 1 stone of wool, 3 thraves of lint, 3 geese, 1 rick hay, 1 stone butter, 1 stone cheese, 1 thrave hemp; Hob Oliver, called of Heidfouldis, 5 lambs, $\frac{1}{2}$ stone of wool, 2 thraves lint, $\frac{1}{2}$ stone cheese, 4 lb. butter; Andro Oliver, called Lang Andro, 8 lambs, 1 stone wool, 1 stone butter, 1 stone cheese, 2 thraves lint, 2 geese; David Davidsoun in Sammistoun, 6 thraves lint, 1 "ruke" hay, 1 stone butter, 1 stone cheese, 1 stirk, 3 thraves hemp; Johnne Fiddes in Burnesede Mylne, 4 lambs, $\frac{1}{2}$ stone wool, $\frac{1}{2}$ stone butter, $\frac{1}{2}$ stone cheese, 2 thraves lint; Andro Thomesoun in Jedburgh, 3 lambs, 4 lb. butter, 4 lb. cheese, $\frac{1}{2}$ stone wool; Adam Kirktown of Stewartfield, 20 thraves lint, 5 thraves hemp, 10 geese, 3 'ruikis' hay, yearly during 1610 and 1611; George Moscrop, Provost of Jedburgh, £40 for the vicarage teinds of Jedburgh, for 1611, 8 bolls bear and 8 bolls meal for the duty of his teinds of Glenslandis for 1610 and 1611; William Davidsoun in Semmistoun, 4 bolls bear and 4 bolls meal for the duty of Semmistoun for 1611; Johnne Robsoun in Wollis, 15 bolls meal, 11 bolls bear, as the teinds of Wollis for 1610 and 1611; also the said David Davidsoun for not delivering to the complainer 4 bolls meal and 4 bolls bear, the teinds of Ulistoun for 1611; and the said Adam Kirktown 8 bolls bear and 8 bolls meal as the duty of the teinds of Stewartfield for 1611."

Three centuries ago some changes were introduced in the method of administration. In 1603 Lord Home acted as general lieutenant of the three marches of the kingdom, having as his deputy Sir William Cranstoun, and their object was to induce the inhabitants of the marches to lead a "godlie, peceible queyet forme of leving." Some two years later a change in the details was adopted. The wardenship was put, so to speak, into Commission, a body of Commissioners—five from England and five from Scotland—being appointed to the charge of the shires of Northumberland, Westmorland, Cumberland and part of Durham; and on the Scottish side, those of Roxburgh, Selkirk, Peebles, and Dumfries, and the Stewartries of Kirkcudbright and Annandale. It may be mentioned that one of the members representing Scotland was Patrick Chirnside of East Nisbet. A police patrol was started, those on the Scottish side being under the control of Sir William Cranstoun, who received for his services a monthly allowance of 100 merks Scots, and to each of the 25 men composing his company there was paid the sum of 40 merks. This patrol went about their work in a systematic manner, scouring the country from Berwick to the Solway, and hauling suspicious characters before the Justiciary Courts, which were held as occasion required. When in doubt or difficulty as to procedure, an appeal was made to the Secret Council, and the reply received was generally, "to execute justice," which practically meant—hang him. As can be imagined, the number of fugitives from justice was great, and, in a country where all were acting on one side, and that, it cannot be said, exactly within the four corners of the law, it was reasonable to suppose that much condonation of misdemeanour was indulged in by the friends of implicated parties. As a searchlight on offenders publicity was evidently thought to be a powerful agent, and to make full use of it, the names of fugitives were appointed to be black-listed, so to speak, and exhibited and proclaimed on two or three mercat days at the "Croces" of the burghs "with authentick copyis to be gevin to every toun clerk, and shereff clerk within the saidis boundis." The clergy were also to be made use of in detective work. Each was ordained to proclaim "at his awne parroche kirke within the haill boundis of our commissioun tua or three severall Sondays the haill names of the saidis fugitives, declairing how

unlauchfull it was to ony that feirit God, or pretendit to be lauchfull subjectis to his Majestie, to resett or mainteyne sic as gaif nouthir thair obedyence to God nor man, and levit upoun the bloode of the puir." Another method adopted to aid in the discovery of stolen property was to appoint "ryperis" in every parish to search for stolen goods, "there number to be according to the quantitie of the parish and of the honestest sorte, who sal be bound to rype everie fiftein dayes betwixt midsomer and Christmasse, at least, and every moneth all the rest of the yeare." And in order that thieves should not readily escape, the idea occurred to some wiseacre that some "lurrgg dogges" should be kept, the number to be regulated according to the "quantitie" of the parish.

In these days we hear a great deal regarding the reduction of licences, but present methods of procedure are only following on the lines of the past. One of the suggestions for the better government of the marches bore that "in regard the number of ale-houses is too greate, it is necessarie that they be redactit to a fewer number, and that such as keeps them be chosen of the honestest men, and shall find caution for there good behaviour, and that such as they give interteynment unto shall behave themselves modestlie in all companies, and that the Commissioners at next meeting shall appointe the number of ale-houses, priviledge such as they allow, of whom they sall tak suertie for their good behaviour, and discharge all others."

That men in these days were good riders when mounted on a mettlesome steed goes without saying. As a consequence, fearful of the results which might ensue were some of the doubtful characters given a free hand, it was decided that "no Bordour man of any broken name shall have nor keepe horse nor meire of greater pryce then thretty poundes Scottis, and that they shall not presume to ryde upon any saddle, but onely upon soddies, except such as may spend, in heritage, takkis or fewis, five hundreth markes Scottis by yeare."

Certainly, there would not be many inducements to travel at that date, but limitations, instead of encouragement, acted somewhat as a brake on the intentions and inclinations of those who might come under the degree of a "suspect." It was admitted that many of doubtful character—at least in such a sense as would be so construed by the authorities—were in the

habit of making excursions across the Borders. A sort of reporting on the present-day ticket-of-leave system was enforced. No person known to have led a "broken lyfe" was allowed to be absent from his own house "48 howers togither without license obteyned of the Commissioners or justices of the peace, and that he notifie unto them that his earand is lawful and just, and how soone he is to returne." There can be no doubt that these strict measures had a most deterrent effect on the ill-doers. One of Sir William Cranstoun's acts was the seizure of Walter Scott, brother to William of Burnfoute. The prisoner was conveyed to Jedburgh where he was lodged in the Tolbuith, and "wes layed in the yrnis." * At the end of the first year the Commissioners reported that thirty-two persons had been hanged at Hawick, Peebles, Jedburgh and Dumfries, some fifteen banished, and "abone sevin scoir" were in the condition of fugitives from justice. By the end of 1606 this number had risen to thirteen score. There must have been some very rough work carried through, and about the methods employed, even Sir William Cranstoun himself seems to have owned to some qualms of conscience, for we find that he received a Royal letter, which was incorporated in the records of the Secret Council, exonerating him for all things done by him in his capacity as an officer in the marches, including his summary execution of outlaws and prisoners without the form of trial. It is a memorable specimen of whitewashing, but it was the precursor of further honour, for on the 1st of June, 1610, his patent of nobility as a Baron was read in the presence of the Council, and henceforth he was known as Lord Cranstoune of Crailing.

* This is interesting, as a specimen of these leg "yrnis" was recently presented to the Museum.

JOHN CRAWFORD HODGSON, M.A.

THE death on 23rd January 1927 of Mr John Crawford Hodgson deprived the Berwickshire Naturalists' Club of one of its most active and prominent members. Mr Hodgson was born at Cowpen, near Blyth, on 2nd April 1854, and was educated at the Grange School, Bishopwearmouth. On leaving school he entered a business office in Newcastle, but the work proving uncongenial and detrimental to his health, he in 1875 took over the management of the estate of Buston Vale, then owned by a great-aunt. Here he remained until 1891, when he took up residence at Warkworth, where he found ample time to indulge his growing interest in genealogical research. On his appointment as librarian at Alnwick Castle in 1899, he became tenant of Abbey Cottage, a snug retreat in the ducal grounds. At Abbey Cottage he lived until 1921, when he moved to No. 6 Bailiffgate, a fine Georgian house, situated almost opposite the entrance to Alnwick Castle. Mr Hodgson became a member of the Berwickshire Naturalists' Club in 1880, was its President in 1906, and acted as Editing Secretary from 1913 to 1922. During his Presidential year he received from Durham University the honorary degree of Master of Arts. A casual glance through the volumes issued during the years embraced by his membership yields convincing proof, not only of his untiring energy, but of the success which attended his efforts to enrich the Club's history. With several kindred societies Mr Hodgson was intimately associated. His connection with the Society of Antiquaries of Newcastle-on-Tyne dates from 1890, and in 1903 he was elected a vice-president. To its *Archæologia Æliana* he contributed at least forty papers. He was equally active in the interests of the Surtees Society, which he joined in 1892, and of which he became a vice-president in 1899. From its inception he was keenly interested in the Northumberland County History, and after the appearance of the third volume he consented to act as editor. During the

eight years in which he held office, volumes iv to vii inclusive were issued to the public, and after resigning the editorship Mr Hodgson continued to take an active interest in the progress of the work. Indeed, the bulk of the pedigrees in volumes viii to xii inclusive are from his pen. Literary interests and the charm of his personality endeared Mr Hodgson to a wide circle of friends. A modest, unassuming man, he possessed in special measure a keen sense of humour. Of the foibles and whims of mankind he was always a sympathetic observer, and he was often heard to assert that, if he had provided as much innocent amusement for his fellows as they had furnished for him, life had not been lived in vain. His bachelor establishment was ably managed for nearly forty years by his sister, Miss Anne Hodgson, whose death, a few years before his own, was an irreparable loss. For the last seventeen months of his life he was bedridden, but his interest in books was maintained to the end. During the closing weeks he found special pleasure in re-reading the monumental work of Gibbon. Prefixed as a motto to some of his manuscript bibliographical notes is a saying from "The Ethics of the Fathers," suggestive of his own attitude towards life: "It is not thy duty to complete the work, but neither art thou free to desist from it."

EDWARD THEW.

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 An Unpublished Letter of Dr Nathaniel Crewe, Bishop of Durham, 1683, vol. xxiv, p. 119.
 Recent Sales of Glebe Lands belonging to Ecclesiastical Benefices in Northumberland, vol. xxiv, p. 121.
 Notes on Harnham and Shortflatt, vol. xxiv, pp. 203, 207, and 208.
 Reputed Origin of the Name of Sweetwilliam, vol. xxiv, p. 223.
 William Webb, sometime Master of Berwick School, vol. xxiv, p. 231.
 John Lamb Luckley, a Forgotten Alnwick Botanist, vol. xxiv, p. 232.
 Obituary Notice of the Right Rev. Monsignor Culley, vol. xxiv, p. 234.
 On Robert Roddam, sometime Postmaster of Berwick, vol. xxiv, p. 238.
 The Rock Hunt (Berwick) in 1785, vol. xxiv, p. 313.
 Lancelot Strother, Schoolmaster at Alnwick, 1679, vol. xxiv, p. 313.
 Obituary Notice of Mr Andrew Amory, vol. xxiv, p. 316.
 On Lady Mordington, *circa* 1744, vol. xxiv, p. 321.
 Berwick Burghal Families—Dickson of Berwick and Alnwick, vol. xxiv, p. 332.
 Berwick Burghal Families—Forster of Berwick and of Sanson Seal, vol. xxiv, p. 337.
 Berwick Burghal Families—Roddam of Berwick, vol. xxiv, p. 340.
 Will of Nicholas Forster of Berwick, 1637, vol. xxiv, p. 347.
 Matthew Hunter, a Seventeenth-Century Alnwick Attorney, vol. xxiv, p. 348.
 Percival Stockdale, sometime Vicar of Lesbury, vol. xxiv, p. 389.
 Original Letters and Bibliography of Alexander Davidson, sometime Vicar of Norham, and his Son of the same Names, sometime Rector of Ford, vol. xxiv, p. 409.
 Berwick Burghal Families—Willoby, vol. xxiv, p. 497.
 John Oxenbridge, Rector of Berwick, sometime Tutor at Magdalen Hall, Oxford; Fellow of Eton, and Minister at Boston, New England, vol. xxv, p. 280.

ARCHÆOLOGIA ÆLIANA.

Second Series.

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 Memoir of William Woodman, Vice-President of the Society of Antiquaries of Newcastle-upon-Tyne, vol. xviii, p. 53.
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 Proofs of Age of Heirs to Estates in Northumberland in the Reigns of Henry IV, Henry V, and Henry VI, vol. xxii, p. 116.
 The Brumell Collection of Charters, etc., vol. xxiv, p. 115.
 Proofs of Age of Heirs to Estates in Northumberland (continuation), vol. xxiv, p. 126.
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 An Attempt to elucidate the Descents of the Family of Alder of Prendwick, vol. v, p. 16.
 On the Mediæval Owners of Eslington, vol. vi, p. 1.
 A Pedigree of Widdrington of Cheeseburn Grange, vol. vi, p. 34.
 Obituary Notice of the late Rev. John Walker, Rector of Whalton and Honorary Canon of Newcastle, vol. vi, p. 273.
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 Note on Dr Burman's Paper on An Ancient British Grave discovered at High Buston, vol. ix, p. 44.
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- Remains of John Horsley the Historian, vol. xv, p. 57.
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- George Tate, the Historian of Alnwick, vol. xv, p. 100.
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- The Manor and Township of Ovington, vol. xvi, p. 49.
- Four Unpublished Letters of Dr Richard Neile, Bishop of Durham, vol. xvi, p. 117.
- An Alphabetical Catalogue of the Goldsmiths of Newcastle, vol. xvi, p. 151.
- The Ancestry of John Hodgson Hinde, vol. xvii, p. 169.
- Shawdon Court Rolls, vol. xviii, p. 53.
- The Manor and Tower of Bitchfield: The Manor, vol. xviii, p. 101.
- The Company of Saddlers of Newcastle, vol. xix, p. 1.
- The Lordship of the Manor and the Township of Beanley, vol. xix, p. 58.
- The Hospital of St Lazarus and the Manor of Harehope, vol. xix, p. 76.
- Manor and Township of Shipley, vol. xx, p. 1.
- Township of Bassington, vol. xx, p. 18.
- The Manors of Brandon and Branton, vol. xx, p. 28.
- The Manor and Township of Titlington, vol. xxi, p. 1.
- The Merchants' Company of Alnwick (with H. M. Wood), vol. xxi, p. 16.
- Monumental Inscriptions in Kirknewton Churchyard, vol. xxi, p. 155.
- The Diary of Timothy Whittingham of Holmside, vol. xxi, p. 197.

Fourth Series.

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- Fenwick of Bywell: An Episode in the History of the Family, vol. i, p. 58.

PROCEEDINGS OF THE NEWCASTLE SOCIETY OF ANTIQUARIES.

Second Series.

- Exhibit of a Lease on Parchment (24 Henry VIII) of Woodhorn Close in Tritlington, vol. v, p. 155.
- Further Notices of the Forsters of Bamburgh and Adderstone, vol. vi, p. 197.
- Exhibit of a Deed of 28th February (23 Elizabeth) between John Heron of Crawley, Son of William Heron of the same place, and Thomas Heron of Newcastle, his Brother, vol. vi, p. 202.
- Exhibit of the Account Book of Nicholas Forster of Newcastle, Merchant, who died in 1679, vol. vii, p. 194.
- On Great Bavington Meeting-house, vol. viii, p. 90.
- Some Forgotten Epitaphs and Monumental Inscriptions in Hexham Priory Church, vol. viii, p. 145.
- On a Silver-Gilt Reliquary containing the Head of St Oswald, King of Northumbria, preserved in the Treasury of the Cathedral Church of Hildesheim, vol. viii, p. 170.
- Exhibit of Articles of Agreement for the Division of Togston, dated 9th January 1632-3, vol. viii, p. 242.
- Exhibit of Articles of Agreement for the Division of Lucker Moor, dated 18th February 1768, vol. viii, p. 244.
- Some Brief Notices of the Family of Dartiguenave, of Patmer Hall, Herts. vol. ix, p. 301.
- Exhibit of the Pardon with the Great Seal attached granted to "Bowery" Charlton for Slaying Henry Widdrington of Buteland in 1710, vol. ix, p. 176.
- Notices of Shrove Tuesday Football at Alnwick, vol. x, p. 18.
- Extracts from the Minute Books of the Select Vestry of the Parish of Warkworth, vol. x, p. 44.

Third Series.

- On Warkworth Tithe Barn, vol. i, p. 63.
- Exhibit of a Seventeenth-Century Peg Tankard made by John Douthwayte of Newcastle, belonging to the Rev. W. S. Thorp, vol. i, p. 90.
- Exhibit of a fine Silver Monteith, London, 1696, belonging to Colonel Arthur Gray, vol. i, p. 208.
- Remarks on Stagshaw Bank Fair, vol. i, p. 211.
- On Grant of Arms to Hugh Moises of Newcastle, Clerk, Master of Newcastle School, 1766, vol. i, p. 290.
- Note on Meaning of the Word "Forest," vol. i, p. 291.
- On Mr Woodman's Collection of Northumbrian Proverbs, vol. ii, p. 55.
- Grant of William de Vesci to the Abbot and Convent of Alnwick in 1307, vol. ii, p. 199.
- Present of Four 4to Volumes of Squibs relating to the Great Northumberland Parliamentary Election of 1826, vol. ii, p. 213.
- On Cumberbach Leach of Belsay, sometime Chaplain there, who died in 1733, vol. ii, p. 303.
- Selected Entries from the Parish Registers of Hexham, vol. ii, p. 339.

On the Devolution of Monastic Lands, vol. iii, p. 15.

Exhibit of a Commission of Captain in the Militia of his (J. C. H.'s) Great-grandfather, Richard Hodgson of Cowpen, in 1803, vol. iii, p. 40.

Exemption by the Lords of the Admiralty to his Grandfather, Joseph Hodgson, to protect him from the Press Gang, 1814, vol. iii, p. 40.

Epitaphs in Wallsend Old Churchyard, vol. iii, p. 58.

On the Ords of Beal, vol. iii, p. 95.

On the Rectorial or Great Tithes of Longhoughton, vol. iv, p. 159.

Notes on the Later History of the Family of Bellingham of Bellingham, vol. v, p. 11.

Dedication of Churches of Northumberland, vol. v, pp. 23, 43, 68, 117, 134, 136, 142.

On William Elderton, the Elizabethan Ballad Writer, vol. v, p. 176.

Deodatus Threlkeld of Newcastle, Watchmaker, vol. v, p. 224.

On Prehistoric Burial at High Buston, vol. v, p. 243.

On Early Use of Electricity as a Curative Agent (communicated), vol. vi, p. 14.

On Samuel Hallowell of Newcastle, Surgeon (died 1760), Son-in-law of John Horsley the Historian, vol. vi, p. 26.

On William Newton of Newcastle, Architect (died 1798), vol. vi, p. 28.

Durham and Northumberland M.I. in Exeter Cathedral, vol. vi, p. 97.

Notes of a House in St Michael's Lane, Alnwick, vol. vi, p. 107.

Extract from Durham Consistory Court Deposition Books, vol. vi, p. 139.

On Three Early Eighteenth-Century Bonds relating to John Horsley, the Historian, vol. vi, p. 143.

Local Notices from the Advertisement Columns of the *Newcastle Courant*, vol. vi, pp. 180, 184, 188, 212, 220, 243, 256, 272.

On the Discovery of Human Remains in Dairy Grounds, Alnwick, vol. vi, p. 254.

The Mather Millions : The Mutation of Wealth, vol. vi, p. 260.

Local Notices from the Advertisement Columns of the *Newcastle Courant*, vol. vii, pp. 103, 171, 216, 232.

Thomas White of Woodlands, in the Parish of Lanchester, Arboriculturist, vol. vii, p. 118.

On Isolated and Private Burial-Places in Northumberland, vol. vii, p. 167.

Abstracts of De Insula or Lisle Inquisitions *Post-mortem*, vol. vii, p. 169.

List of Incumbents of Stannington, vol. vii, p. 179.

Northumberland and Durham M.I. in Bath Abbey, vol. vii, p. 186.

Note on William Pell, the Commonwealth Rector of Easington, vol. vii, p. 203.

Notices of a Family of Williams of Newcastle, Glass Manufacturers, vol. vii, p. 207.

On a Book belonging to the beautiful Dorothy Forster, vol. vii, p. 211.

Northumberland and Durham M.I. from Churches near Bath, vol. vii, p. 255.

Two Chapters from the History of Upper Coquetdale-Cartington and Harbottle, vol. viii, p. 21.

George Marsh the Elder and George Marsh the Younger, Successive Rectors of Ford, vol. viii, p. 43.

An Encomium on the Death of the Rev. William Greenwell, vol. viii, p. 109.

- Notices of the Port of Blyth (1677), vol. viii, p. 129.
 Seggerston's Close, in the Parish of Morpeth, vol. viii, p. 136.
 Richard Peck, an Eighteenth-Century Coal Viewer, vol. viii, p. 151.
 Notices of the Lay Rectory of Ovingham, vol. viii, p. 182.
 Pedigree of Sanderson of Hedley-Hope, vol. ix, p. 14.
 A List of Clerks of the Peace for Northumberland, vol. ix, p. 26.
 Minor Historians and Topographical Writers of Northumberland, vol. ix, p. 31.
 Notes on the Township of Spittle, in the Parish of Ovingham, vol. ix, p. 83.
 Heron Estates and Wark Tenants, vol. ix, p. 90.
 On John Rickman, Compiler of the Census Returns, vol. ix, p. 152.
 On Sale of Ilderton, vol. ix, p. 159.
 On the Rev. William Nowell, Rector of Wolsingham (died 1782), vol. ix, p. 175.
 Notices of Reynold Gideon Bouyer, sometime Archdeacon of Northumberland (died 1826), vol. ix, p. 182.
 On Recent Sales of Glebe Lands in Northumberland, vol. ix, p. 187.
 Communicates the Rev. William Greenwell's Correspondence and Observations about the Nevill Screen in Durham Cathedral, vol. ix, p. 217.
 Will of Lancelot Ord of Weetwood, a Jacobite Refugee, vol. ix, p. 255.
 A Forgotten Alnwick Tragedy (1703), vol. ix, p. 255.
 On Isaac Basire, Archdeacon of Northumberland, vol. x, p. 8.
 John Scafe, the Northumbrian Minor Poet, vol. x, p. 14.
 Note on Sheep Marking in Northumberland, vol. x, p. 62.
 John Brough Taylor, F.S.A., a Sunderland Antiquary (died 1825), vol. x, p. 70.
 Sir David William Smith, Baronet, Soldier (*recte*), Parliamentarian, Land Agent, and Antiquary, vol. x, p. 80.
 On Stainton (Stanton) Court Rolls, vol. x, p. 85.
 Exhibit of a Grant of Arms to William Forster of Alnwick (1821), a Charter of Alexander de Hilton of Lands in Rennington (*recte*), and Indenture of Apprenticeship of John Dickman of Broxfield, 1662, vol. x, p. 228.
 On the Unthanks of Unthank, Parish of Alnham, vol. x, p. 303.

Fourth Series.

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 Notes on the Horse Heads found in Ilderton Church in 1880, vol. i, p. 153.
 Three Generations of London Booksellers and their Descendant, Paul Vaillant of Hexham, vol. i, p. 220.
 Observations on the Pedigree of Cotesworth of the Hermitage, vol. i, p. 262.
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SURTEES SOCIETY PUBLICATIONS.

- Wills and Inventories from the Registry at Durham (1543-1603), vol. cxii.
 Six North-Country Diaries, vol. cxviii.
 North-Country Diaries, 2nd series, vol. cxxiv.

Northumbrian Documents of the Seventeenth and Eighteenth Centuries, comprising the Register of the Estates of Roman Catholics in Northumberland, and the Correspondence of Miles Stapylton (Auditor and Commissioner of Bishop Cosin), vol. cxxxi.

Percy Bailiffs' Rolls of the Fifteenth Century, vol. cxxxiv.

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Charles Peter Dartiquenave, 9th series, vol. vi, p. 269.

Captain Widdrington of Felton, 9th series, vol. x, p. 187.

The Descendants of Lord Collingwood, 10th series, vol. v, p. 49.

Lindo or Lintot, Portrait Painter, 10th series, vol. v, p. 273.

Mrs James Robertson, Portrait Painter, 10th series, vol. v, p. 304.

Hamilton Brown, 10th series, vol. viii, p. 27.

Lady Clavering, 11th series, vol. i, p. 231.

Crow of Kiplin, 11th series, vol. i, p. 233.

Deodatus and Thomas Threlkeld, 11th series, vol. vi, p. 211.

The Alnwick Abbey Flagstaff, reputed to be the tallest one-piece Flagstaff in the British Empire, 11th series, vol. xi, p. 254.

Richard Wilson of London, Attorney in the time of the Regency, 12th series, vol. ii, p. 75.

Pedigree of Kingsley, 12th series, vol. ii, p. 136.

Mr Basset of Helperby, 12th series, vol. iv, p. 45.

NORTHERN NOTES AND QUERIES.

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The Manor of Bewick.

The Family of Coulter, of Lesbury and London.

The Family of Jobber, of Felton.

The Family of Watson, of Cowpen, with a Pedigree.

The Family of Alnwick, of Alnwick.

The Family of Fielding, of Bebside.

The " Catherine " Oak at Morwick.

Inn at Wooler Haugh Head.

The Family of Manners, of New Moor House.

Portraits by Lindo or Lintot.

NORTHUMBERLAND COUNTY HISTORY.

Hexhamshire, with Whitley Chapel, Allendale, Ninebanks, St John Lee, Chollerton, with the Chapelry of Birtley, Kirkheaton, and Thockrington, vol. iv.

Warkworth, Shilbottle, Brainshaugh, vol. v.

Bywell St Peter, Bywell St Andrew, with the Chapelries of Whittonstall, Shotley, and Blanchland; Slaley, vol. vi.

Edlingham, with the Chapelry of Bolton, Felton, with the Chapelry of Longframlington, Brinkburn Priory, vol. vii.

Numerous Pedigrees in vol. i, ii, iii, viii, ix, and x.

OTHER PUBLICATIONS.

- The Registers of Warkworth Parish, Northumberland (1677-1812). Transcribed, edited, and indexed. Published by the Newcastle Society of Antiquaries, 1899.
- The Registers of Ilderton, in the County of Northumberland, 1724-1812. Transcribed, edited, and indexed. Privately printed for the Northumberland and Durham Parish Register Society, 1918.
- Epitaphs and Monumental Inscriptions of Warkworth Church and Churchyard. (With M. H. Dand.) Printed for private circulation. Alnwick (1890), 8vo.

METEOROLOGICAL OBSERVATIONS IN BERWICKSHIRE DURING 1927.

Compiled by the Rev. A. E. SWINTON, M.A., F.R.Met.Soc., Swinton House.

Month.	Temperature.		Days with Tem- perature at or below 32°.	Bright Sunshine.				
	Maximum.	Minimum.		Hours.	Days with Sun.	Hours. with Sun.	Days with Sun.	
	Whitchester.	Whitchester.	Whitchester.	Whitchester.	Whitchester.	Whitchester.	Whitchester.	
	Cowdenknowes.	Cowdenknowes.	Cowdenknowes.	Cowdenknowes.	Cowdenknowes.	Cowdenknowes.	Cowdenknowes.	
	Marchmont.	Marchmont.	Marchmont.	Marchmont.	Marchmont.	Marchmont.	Marchmont.	
	Duns Castle.	Duns Castle.	Duns Castle.	Duns Castle.	Duns Castle.	Duns Castle.	Duns Castle.	
	Manderston.	Manderston.	Manderston.	Manderston.	Manderston.	Manderston.	Manderston.	
	Swinton House.	Swinton House.	Swinton House.	Swinton House.	Swinton House.	Swinton House.	Swinton House.	
	West Foulden.	West Foulden.	West Foulden.	West Foulden.	West Foulden.	West Foulden.	West Foulden.	
January	50	49	22	22	47.1	20	49.0	17
February	55	54	22	22	61.1	22	67.1	22
March	62	65	28	30	110.8	30	96.0	26
April	61	63	22	26	166.5	28	146.8	27
May	75	68	26	24	137.6	24	117.1	30
June	65	64	33	35	182.6	29	134.6	26
July	75	73	42	46	148.1	27	122.7	25
August	72	71	41	43	143.1	27	124.3	26
September	70	71	36	40	79.8	25	85.7	27
October	62	65	26	43	66.2	22	71.9	26
November	60	64	25	27	49.2	20	61.1	22
December	46	45	14	18	14.5	10	16.2	19
			20	21	18	18	18	9
Year	75	81	1206.6	284	1092.5	260	936.8	277

ACCOUNT OF RAINFALL IN BERWICKSHIRE DURING 1927.

By JAMES HEWAT CRAW, F.S.A.Scot.

Locality.	Height above sea-level .	Blythe Rig (Burncastle).	Burncastle.	Cowdenknowes.	Marchmont.	Rowchester.	Lochton.	Hirsel.	Coldstream School.	Swinton House.	Nisbet House.	Duns Castle.	Manderston.	Edrom School.	Chirnside.	West Foulden.	Ayton School.	St Abb's Lighthouse.	Total
		1250'	900'	360'	500'	450'	150'	94'	100'	200'	280'	500'	356'	248'	420'	250'	150'	200'	
January		3.52	2.82	2.92	2.40	1.89	1.76	1.70	1.61	1.68	1.58	2.04	2.07	2.14	1.13	1.56	2.02	1.53	
February		1.21	.87	1.11	1.03	.81	.71	.51	.70	.68	.74	.82	.65	.62	1.17	.52	.75	.43	
March		3.18	2.73	2.45	2.69	1.56	1.74	1.83	1.73	1.84	1.78	2.54	2.79	2.53	1.70	1.50	2.01	1.71	
April		1.82	1.55	1.81	1.82	1.12	1.29	1.16	1.07	1.30	1.39	1.60	1.44	1.34	1.16	1.16	1.45	1.53	
May		3.15	2.19	1.87	2.78	1.53	1.47	1.54	1.62	1.77	2.31	2.56	2.55	2.41	1.93	1.89	2.62	2.47	
June		3.98	2.65	2.48	3.74	2.76	2.91	3.29	2.81	3.11	3.74	3.66	3.74	3.12	3.71	2.88	3.32	2.78	
July		6.39	4.05	3.55	3.40	2.39	3.82	3.22	3.47	3.57	4.05	3.53	3.49	2.63	3.34	2.69	3.50	1.97	
August.		8.59	6.03	7.60	7.94	5.77	6.56	6.35	6.50	6.65	7.20	6.81	6.40	3.77	4.45	6.48	5.50	6.14	
September		7.98	7.18	6.15	6.04	4.76	5.15	5.40	5.31	5.14	5.20	5.96	6.47	5.92	5.17	5.08	4.55	5.52	
October		3.96	3.81	3.03	2.71	1.82	1.77	1.61	1.56	2.46	2.26	2.22	2.32	1.92	2.06	1.96	6.32	2.27	
November		4.58	3.62	2.32	3.31	2.02	2.85	2.76	2.72	2.87	3.20	3.27	3.14	2.81	3.05	2.84	3.17	2.66	
December		2.23	2.82	.99	2.72	2.02	2.55	2.53	2.69	1.95	2.97	2.35	2.64	1.95	2.90	2.97		2.24	
Total		50.59	40.32	36.28	40.58	28.45	32.58	31.90	31.79	33.02	36.42	37.36	37.70	31.16	31.77	31.53	31.71	31.25	

TREASURER'S FINANCIAL STATEMENT FOR YEAR ENDING 30th SEPTEMBER 1927.

RECEIPTS.

<i>Subscriptions—</i>		
410 Members at 10s. . .	£205 0 0	
3 Arrears at 10s. . .	1 10 0	
18 Entrance Fees at 10s. . .	9 0 0	
Donations . . .	0 10 0	
	£216 0 0	
<i>Sale of Club Badges, 40 at 2s. each</i>		
Extra received from Members to cover Bank Charges . . .	4 0 0	
Transactions sold by Librarian . . .	0 2 6	
Interest on Bank Deposit . . .	12 8 7	
	8 11 0	
Debit Balance at 30th September 1927 . . .	15 2 11	

PAYMENTS.

Debit Balance from 1926 . . .		£84 15 1
<i>Printing and Stationery—</i>		
Neill & Co., Edinburgh—		
1926 Proceedings £101 4 3		
Field Notices { 1 15 6		
	£122 2 3	
D. Watt & Son, Cash Book . . .	2 10 0	
G. C. Grieve . { 1 7 9		
	1 15 6	
		126 7 9
		3 10 0

Rent, Berwick Museum Postages and Officials' Expenses—

Secretary . . .	£9 7 0
Editing Secretary . . .	2 0 0
Treasurer . . .	3 19 5
Librarian . . .	0 8 3
	15 14 8
Clerical assistance . . .	£9 0 0
Cleaning Room at Museum . . .	0 7 6
Commission on Cheques, Bank	
Interest and Cheque Books . . .	1 3 0
Rev. M. M. Piddocke, Battle Stone	
at Old Yeaving . . .	4 1 0
J. B. Hawick, compiling Index . . .	6 6 0
North of England Excavation Com-	
mittee . . .	5 0 0
	25 17 6
	£256 5 0

APPROXIMATE BALANCE SHEET.

LIABILITIES.

Overdrawn on Current Account at Bank . . .	£15 2 11
Neill's Estimated Account for 1927 Proceedings	102 0 0
Approximate Balance in Club's favour at date	192 17 1
	£310 0 0

ASSETS.

Amount on Deposit 30th September 1926 . . .	£309 19 0
Part Interest on Deposit . . .	0 1 0
	£310 0 0

11th October 1927.—I have examined the above Financial Statement with the books and receipted accounts, and find it correct. The Bank

C. A. ROBSON, Auditor.
(Signed)





HISTORY
OF THE
BERWICKSHIRE
NATURALISTS' CLUB

INSTITUTED SEPTEMBER 22, 1831

"MARE ET TELLUS, ET, QUOD TEGIT OMNIA, CÆLUM"

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HISTORY OF THE
BERWICKSHIRE NATURALISTS' CLUB.

CONTENTS OF VOL. XXVI.—PART III.

1928.

	PAGE
1. Annual Address by Major CHARLES H. SCOTT PLUMMER, delivered 3rd October 1928	285
2. Reports of Meetings for 1928 :—	
(1) THE FOUL FORDS: 30th May	301
(2) THE BASS ROCK: 28th June	304
(3) LOCH SKENE: 25th July	306
(4) FORD AND ETAL: August	308
(5) PRENDWICK: 12th September	309
(6) BERWICK: 3rd October	312
3. The Story of the Foul Ford: A Lammermoor Tragedy. By THOMAS GIBSON, J.P.	318
4. An Australian Pioneer	322
5. The Lepidoptera of Northumberland and the Eastern Borders. By GEORGE BOLAM	323
6. The Black Dykes of Berwickshire. By J. H. CRAW, F.S.A.SCOT. (Map of Berwickshire)	359
7. The Halls of Haughead. By Rev. J. F. LEISHMAN, M.A. (Plate XI)	376
8. Report on British Association Meeting at Glasgow. By JOHN BISHOP	379

CONTENTS.

	PAGE
9. Half a Century of Merse Weather. By J. H. CRAW, F.S.A.SCOT., F.R.MET.SOC. (Rainfall and Temperature Charts)	383
10. Two Hundred Years Ago	385
11. Obituaries :—	
(1) George Muirhead. By GEORGE BOLAM	386
(2) Henry Rutherford. By Sir GEORGE DOUGLAS, BART.	390
(3) Rev. R. C. Inglis	393
(4) Howard Pease. By R. C. BOSANQUET	393
12. Two Hundred Years Ago	396
13. Meteorological Observations in Berwickshire during 1928. By Rev. A. E. SWINTON, M.A., F.R.MET.SOC.	397
14. Account of Rainfall in Berwickshire during 1928. By J. H. CRAW, F.S.A.SCOT., F.R.MET.SOC.	398
15. Treasurer's Statement for the Year ending 30th September 1928	399
16. Berwickshire Naturalists' Club Rules and Regulations (Revised 1925)	400
17. List of Members, 30th September 1928	403
INDEX	414

PROCEEDINGS
OF THE
BERWICKSHIRE NATURALISTS' CLUB

*Address delivered to the Berwickshire Naturalists' Club
at Berwick, 3rd October 1928. By Major CHARLES
H. SCOTT-PLUMMER.*

IN choosing a subject for my Address I thought I could not do better than follow the example of my predecessors, who have naturally dealt with subjects in which they have been particularly interested. I therefore propose to deal with some aspects of the chase in the Borders, more especially as carried on in the eighteenth and nineteenth centuries. To glance for a moment at earlier times, hunting seems to have been carried on as a sport as far back as we have any records. Our kings seem to have been particularly fond of hunting, and no doubt, where they could do so, their subjects followed their example. Ettrick Forest and a great deal of the surrounding country was early set aside as a Royal hunting-ground, and many stringent laws were passed to preserve the timber, the beasts of the chase, and the falcons that frequented it. King David, that "sair sanct to the croon of Scotland," spent much of his time hunting there, though we learn that if anyone brought any grievance before him, he would always give up his day's sport in order to expedite the cause of justice.

Evidently he did not approve of making a business of his pleasures.

Alexander III was also a great hunter, and is said to have given an enormous price for a hound and her seven whelps. At that time Ettrick Forest must have been under wood to a great extent, though interspersed with considerable areas of open ground, as we know that sheep were reared there and a good trade in wool carried on. No doubt all the "beasts of venerie" were to be found there. They were the hare, the wolf, the boar, and the hart. There were also wild cattle, perhaps of the same kind as those still preserved at Chillingham, for we know that the progenitor of a well-known Border family got his name by saving the life of King Robert I from a charge of one of these animals when he was hunting in Ettrick Forest.

It was the practice, especially when kings or other great personages were hunting, to place the principal people at points of vantage with bows, or holding greyhounds in leash, while the huntsman with hounds and attendants roused the beasts of the chase from their lairs and drove them in the required directions. They were then either shot or the greyhounds were slipped at them. We learn from the book on the craft of hunting, by Master John Gifford and William Twety, that, for the queen or other great ladies, it was the duty of the huntsmen to prepare booths at the above-mentioned points of vantage to protect the ladies from the sun or rain. The chase was, however, not always so conducted, for the same authors say that "if your houndes be bold and have slayn the hert with strength of huntynge . . . the houndes shall be rewardid with the nekke and with the bowellis with the fee," etc., but elaborate instructions are given for recalling hounds when archers or greyhounds are posted in advance. It is quite easy to see how these huntsmen or verderers would become very expert with the bow, and there

would be some temptation for other inhabitants of the Forest to become equally expert. The result was that Ettrick Forest furnished the archers for the Scottish army.

One cannot pass from these hunting days of old without some reference to that great occasion when

“ The Persé owt of Northomberlande,
And a vowe to God mayd he,
That he wolde hunte in the mountayns
Off Chyviat within dayes thre,
In the mauger of doughtè Dogles,
And all that ever with him be.”

The hunt was evidently carried on in the approved fashion above referred to.

“ The dryvars thorowe the woodes went,
For to reas the dear,
Bowmen bickarte upon the bent,
With ther browd aras cleare.

Then the wyld thorowe the woodes went,
On every side shear,
Greahondes thorowe the greves glent,
For to kyll thear dear.

The begane in Chyviat the hyls above,
Yerly on a monnyn day,
Be that it drewe to the oware of none,
A hondrith fat hartes ded ther lay.”

If we are not to allow a good deal for “poetical licence,” the country about Cheviot must have been well stocked with deer in those days.

The story as told in the poem seems to have got a good deal mixed up with that of Otterburn, but I think most authorities are of opinion that it must have

foundation in fact, and that some such hunt as is described did actually take place.

During the sixteenth and seventeenth centuries the people of the Borders must have been too much occupied with warfare to pay much attention to the chase, and during these times the timber of the forests must have been largely destroyed, and the deer which the forests harboured killed for food. Apparently there were a few survivors in the beginning of the eighteenth century, and it was not till 1774 that the last "hart" was killed. This animal was seen at Bowhill during a severe snow-storm, and was shot at but not injured. The severity of the storm then drove it to feed among some sheep at Middlestead, where it was caught and shut in a barn, "where there was a rope fixed across for his jumping over for exercise." A great many people came to see the stag, and a farmer, George Fletcher by name, who was molesting the animal, was struck by it on the head and killed. According to the *Scots Magazine* the stag was hunted "by the Duke of Roxburgh and a great deal of gentlemen, who were then at Selkirk hunting foxes in that neighbourhood." Mr Craig Brown, in his *History of Selkirkshire*, says that the stag was taken to Midlem and set free there, that Mr Scott of Gala's hounds hunted it, and that it was killed at the village of Ettrick Bridge end. The *Scots Magazine* says that 2000 people were at the meet of men, women, and children, that they had a run of about fifteen miles without the slightest check, and only about twenty were in at the death.

In the early part of the eighteenth century the country must have presented a very different appearance from what it does now. In Scotland it was farmed largely on the runrig system. There were practically no fences and no drainage. In the more upland areas the valleys were so swampy that the higher ground was often cultivated in preference. Of roads, as we know them, there were none, and such tracks as existed were

almost impassable for carriages in winter. The first farm cart was not introduced till 1727, and was an object of wonder and astonishment to the people who saw it. There were no plantations. It might be difficult to follow the chase in those days owing to the frequency of bogs and swollen watercourses in winter, but there must have been few obstacles in the way of fences.

The hare was probably the chief beast of the chase, as foxes were very scarce. There is a very spirited account of a hare hunt in an old song called "Leader Haughs and Yarrow." The song was first published in a collection of songs, I think, in the year 1734, but from its language it cannot be of much earlier origin than the eighteenth century. I have not been able to come upon any records showing what hounds were kept, or who kept them, in the earlier part of the century in the Borders, but they undoubtedly existed. Sir Walter Scott's grandfather, who must have been a young man about 1730, was evidently a very keen follower of the chase. Lockhart relates of him that his first farming venture was to go to Wooler to buy some sheep, but that he spent all the money—which, incidentally, he had borrowed from his shepherd—on a hunter. He, however, rode it so well with his kinsman's (Mr Scott of Harden) hounds that he sold it for twice the price he had given for it, which shows that at that date there were people anxious to have a good place when hounds were running. Mr Lumsdaine of Blanerne kept a pack of hounds in Berwickshire about 1740, though what district they hunted I do not know. One of your late Presidents, Mr Smail, sent me long ago an old song called "The Hunting of Ruberslaw," which he had pieced together from the lips of several old people in Jedburgh. This describes a fox-hunt with the hounds of one of my own ancestors, Andrew Plummer of Sunderland Hall. The song says that the chief of all the

countryside were met for the hunt, but the only two other names mentioned are those of Mr Oliver—I think Mr Oliver of Edgerston—and Mr Scott of Gala. According to the song they had a run of fifty miles in four hours. If these figures have any approach to accuracy, it was a hunt well worthy to be immortalised. About the middle of the eighteenth century Mr Baillie of Mellerstain had a pack of hounds. He was the second son of Lord Binning, who had married the heiress of Mellerstain. Mr Baillie had a huntsman of the name of Duncan Gordon, and his hounds had the reputation of being very savage.

About this time a great change was coming upon the face of the country. New agricultural methods were being gradually adopted. The runrig system was giving place to the present system of farms. The turnip was introduced, fields were being divided by fences, marl was being applied to the land, and woods and shelter belts planted. Roads were still very bad, but with the introduction of turnpikes it was becoming possible towards the end of the century for a coach to proceed at a greater speed than a foot pace. Still all fast travelling had to be done on horseback, and even at the close of the century a member of Parliament going to London went on horseback accompanied by two armed servants. When Colonel Thornton, about 1786, made his sporting expedition to Scotland he took with him a small two-wheeled vehicle drawn by two horses tandem, and it took him six hours to go from Kelso to Lauder. When he passed through Kelso he found Kelso Races going on, and a large company of sportsmen in the town, including the members of the Caledonian Hunt, which had been instituted a few years before. For the occasion the foxhounds and harriers hunted alternate days. Whether there was more than one pack of foxhounds is not clear, but the Lothian Hounds were there, having as their

masters Messrs Hamilton and Baird (Newbyth). These hounds had been started in 1783, and hunted East Lothian and the Duns country in Berwickshire. Colonel Thornton mentions that as the ladies dined at the ordinary the gentlemen had to remove their boots, and he seemed to think that though this was *de rigueur* it was an unreasonable custom when ladies dined—as they did—in their habits. This observation is very interesting, as showing that ladies in 1786 hunted. Fifty years later, when Mr Apperley (“Nimrod”) made his sporting tour in Scotland, he never mentions any case of a lady hunting. While at Kelso, Colonel Thornton also complains of a strange custom at dances in Scotland “very disgusting to an Englishman.” “Though a lady is engaged as a partner for the evening, she conceives herself entitled to jump up and dance a reel with any indifferent person, without saying a syllable to her partner.” He mentions that after the dance the gentlemen sat drinking the ladies’ healths till it was time to go out hunting.

At the end of the century a very large area in the Borders was hunted by Mr George Baillie, son of the Mr Baillie of Mellerstain mentioned above. He hunted all the country now hunted by the Duke of Buccleuch’s hounds, the Lauderdale, the Jedforest, the North Northumberland, and the Berwickshire, with the exception of the Duns country. Foxes must have been very much scarcer than they are now, and naturally hounds had to lie out perhaps two or three nights at one place while hunting a particular neighbourhood. He had a huntsman named Andrew Lumsden, who was a good performer on the fiddle, which he took with him on these occasions to enliven the company in the evenings.

I rather think that before Mr Baillie hunted the Northumberland country that district, which was known as the North Durham country, was hunted by Mr Sitwell of Barmoor. Mr Baillie had some notable runs

in his day. One with a fox found on the Black Hill of Cowdenknowes. They ran first to the Gateheugh. Perhaps it was on that occasion that one of his whippers-in slid, horse and all, from the top of the Gateheugh into the Tweed, and afterwards finished the run. Anyhow, they ran from there to Newtondon, where the fox went to ground. Having bolted him, they ran him by Rowchester to Fogo Moor, where hounds nearly caught him among some whins. They then ran him to Marchmont, where he saved his brush by getting to ground in some large fox earths. "Nim North," the son of the Mr Sitwell of Barmoor above mentioned, describes Mr Baillie's hounds in 1824. He says he kept a huntsman and two whippers-in. Andrew Lumsden, he says, was getting rather slow, that he was never a good huntsman, but a fair rider to hounds. There were generally about fifty or sixty people constituting the "field." A good many of these were not hard riders, he says. The best men were Sir John Pringle, the Hon. John Elliot, Mr M. Culley of Akeld, and Major St Paul. He gives the characteristics of these riders. Major St Paul would not admit having had a fall if he got hold of his horse before it could get up; Matthew Culley went very well on a good horse, but speculated too much when he was indifferently mounted; Sir John Pringle was very hard to beat when he was in good health and in the humour. To describe Mr John Elliot's prowess in the field he apparently found the English language insufficient, and had to have recourse to Greek. He describes him as *κατεξοκην*. "He cheers as he rasps along, and stops at nothing," but he adds that if Mr Elliot, who by the way rode sixteen stone, should be thrown out he would give it up altogether. He must be *aut Cæsar aut nullus*. "Nim North" describes a wonderful day's sport on the 31st October of that year. Mr Baillie's hounds found a fox at Haddon Rig, and ran him by "Gosely Bog"—I presume Hoselaw Moss is meant—

then by Yetholm and Scotch Belford Burn to Dunsdale Hope and killed, only three riders out of sixty being in at the death. On the same day Mr Gregson of Lowlinn, who kept some harriers, and, being a heavy weight, not liking to go out with the foxhounds, which were in a hill country, took his harriers out. They found a fox at Lowlinn, and ran by Berrington Wood and Felkington Moor to Newbiggin Dean in forty minutes.

Readers of *Guy Mannering* may remember that it is related in the notes that when Mr James Davidson of Hindlee was on his deathbed he heard Mr Baillie's hounds running a fox, and insisted on being taken to the window that he might enjoy to the full the sound which he loved best. In this connection a good story is told of Mr Baillie himself. After he had given up hunting he was out one day with his forester when the Duke of Buccleuch's hounds came by in full cry. The old man was delighted. "Isn't that glorious?" he said. "Isn't that grand?" Then turning to the forester he said, "John, did you ever hear music to beat that?" "I can hear naething," replied the man, straining his ears to listen. "I can hear naething for they damned dogs." *Quot homines, tot sententiae.*

The costume of Scottish huntsmen in the eighteenth and beginning of the nineteenth centuries was peculiar. It is thus described by "Nimrod." "A black velvet cap, a short red jacket known by the term spencer, and leather breeches quite as thick as a bullock's hide." This dress was not confined to hunt servants, for he says that about the year 1805 some officers of a Scottish regiment that was quartered at Wrexham hunted in scarlet jackets, fitting tight to the person, which he describes as having an "outlandish appearance in our eyes," but, he adds, "it required a good man on a good horse to see the way some of those scarlet jackets went."

At the end of the eighteenth century the Duns country in Berwickshire was hunted by the Lothian Hounds.

This pack was started in 1783 by Henry Duke of Buccleuch, Mr Baird of Newbyth, Colonel Hamilton of Pencaitland, and others. Mr Baird was a brother of the hero of Seringapatam. He was either joint master or master of these hounds till 1828. He had some noted huntsmen under him—John King, Frank Collison, who was perhaps more a horseman than a huntsman, and last, but certainly not least, Williamson, who was afterwards for many years huntsman to the Duke of Buccleuch.

In 1818 Mr Hay of Duns Castle took the Duns country of Berwickshire. He had an unfortunate start. Early in the season his hounds ran a fox to a steep bank on the Whitadder, and nine and a half couples were killed falling over the cliff. In 1826 Mr Baillie gave up his hounds, and the Duke of Buccleuch—then a minor—and Mr Baird took over all the country which he had hunted, except the part in Northumberland. Mr Baird retired the next year, and the Duke became sole master in 1828, with Williamson as huntsman. The Northumberland country was then, I think, hunted by hounds kennelled at Doxford, under the name of the Doxford Hounds. They were managed and hunted by a gentleman of the name of Boag. Mr Boag was a yeoman farmer, as his father, who at one time had himself kept hounds, had been before him; but in the days of agricultural depression which followed the Napoleonic wars he, with many other good men of his class, was obliged to sell his patrimony and take up another profession. He became a huntsman, and after managing the Doxford hounds went to Sir Matthew Ridley as his huntsman. Major St Paul then took over the North Northumberland country, and called his hounds the Galewood Hounds.

About the year 1830 Lord Elcho began hunting the Berwickshire country as well as East Lothian, Mr Hay having retired. I think this period, the twenty or thirty years round about 1830, may be looked upon as the golden age of fox-hunting in the Borders, if not in

all countries. By this time all the low country had been brought under cultivation and enclosed, the enclosures being very much as they are now. The fences were mostly thorn hedges protected by a ditch on one or both sides. Dry stone dykes were also to be met with where that material was available. The hillier parts of the country had not yet been enclosed. It was not till the booming years of the fifties and sixties that they were broken up and divided. Wire had not been introduced as a fencing material, and it was its introduction that helped to make the cultivation of this second-class land possible. Roads had been much improved, and wheeled vehicles made which could be drawn along them at a speed of ten to twelve miles an hour. It was possible to go by coach from Edinburgh to London in forty hours or even less—a greater revolution in rapid and comfortable travelling than that brought about by the railways some few years later. For the hunting man it was an ideal condition of things. A good horseman on a good horse could surmount almost any of the obstacles which presented themselves. There was no fear of overcrowding in the parts of the country most attractive from a riding point of view, and the very widest hospitality was always extended by one sportsman to another. That this hospitality was sometimes abused we learn from the perusal of Mr Surtees' inimitable stories, but this abuse cannot have been excessive before the advent of railways. I think the prestige attaching to the name of "sportsman" must have accrued to it early in the nineteenth century. The "sportsman" in those days had to be a man of courage and endurance, willing to bear fatigue and discomfort in pursuit of his object. When the Duke of Buccleuch in those days hunted Roxburghshire he was often living at Dalkeith, and rode from there in the morning and back at night with a relay of hacks. When "Nimrod" was staying at Duns Castle for a meet at

Ladykirk, he mentions that he came down early to breakfast and found Sir David Baird there, who had come to hunt, and had ridden that morning from Edinburgh on one hack. He must have set out at three or four in the morning. I wonder how many of our present sportsmen who roll up at the meet in their motor cars would be at the hunt if they had to do that.

"Nimrod" in another place mentions the fact that Mr Campbell of Saddell, after seeing a run near Kelso, rode to Edinburgh to attend a dinner, and the next morning rode fifty miles to meet Lord Elcho's hounds. He himself, though an elderly man at the time, rode thirty miles to a meet of the Duke's hounds at East Gordon. He says there could not have been less than 150 horsemen at this meet, but adds that it was the largest he ever saw in Scotland. "Nimrod" describes a very fast run with the Galewood hounds. He says they ran eleven miles in just forty minutes from Learmouth Bog, and that it was like a race the whole way, which one can well believe. Lord Elcho, he adds, was first, Mr M'Kenzie Grieve second, Lord Eglinton third, Mr Fletcher of Saltoun fourth, and the rest nowhere. The crossing of the Till seems to have finished "Nimrod" himself. Perhaps it may be of interest to refer also to a very fine run which took place a few years later with the Duke of Buccleuch's hounds. They found a fox at Hadden Rig, ran two fields eastward, then turned south, and never checked till they killed their fox at Middleton Hall. Sir David Baird, who got a good start, was not caught till they got to Kirknewton Torrs, though closely followed by Williamson the huntsman, Hugh Burns the whipper-in, Lord John Scott, young George Grey of Milfield, Mr Spottiswoode of Spottiswoode, and Mr Todd of Drygrange. One of these I have myself long ago met out hunting, Mr Grey of Milfield, but he was then no longer young George Grey, and was so blind that he had to have a man ride in front of him with a white

band across his back. Even under those conditions it was a treat to see so fine a horseman.

It was during the years about 1850 that Surtees, the author, used to come to the Borders to hunt. The Duke of Buccleuch, grandfather of the present Duke, told me that many of his characters were recognisable as being taken from people in this country. For instance, Mr Jogglebury Crowdey bore a striking resemblance to a man living on the Northumberland side, and Jack Spraggon was apparently taken from an individual who hunted with Lord Wemyss' hounds, and who lived at North Berwick. I have heard it said that the character of Lord Scamperdale was modelled on Lord Wemyss himself, but that could hardly be the case. The novel in which Lord Scamperdale occurs (*Mr Sponge's Sporting Tour*) is actually dedicated to Lord Wemyss, who was a particular friend of the author, and indeed the only real resemblance in the two characters was their extreme love of hunting. The joke about hunting in Berwickshire—Lord Wemyss' country—which occurs in *Mr Sponge's Sporting Tour*, had its origin in the rivalry which existed between Lord Wemyss and that other very keen sportsman, Lord John Scott, acting master of the Duke's hounds, to whom Surtees dedicated his best-known novel, *Handley Cross*, and which rivalry prevented either of them from admitting that good could ever be found within the limits of the other's regime. Surtees' "Pomponius Ego" was clearly taken from Mr Apperley—the "Nimrod" to whose writings I have frequently referred. It is worthy of note that Surtees has no hunting ladies among his characters. The ladies in his books confined themselves to riding to the meet, and the only one who ever even took part in a run had been a circus rider at Astley's. I think it is clear that though ladies seem to have hunted in the eighteenth century, they did not do so in the first half of the nineteenth. The next half century saw a

change in this respect, and in the seventies and eighties a great many ladies in the Borders hunted regularly, though they had not the facilities that they have now for going far from home, and therefore formed a smaller proportion of the "field."

Lord Wemyss, who latterly hunted the North Northumberland country, gave up in 1867. That and the Berwickshire country have had as masters since then to the end of the century Mr Robertson of Ladykirk, Mr Askew, Sir John Marjoribanks, Mr Calder, Lord Haddington, Mr Lambton, Major Hunter of Antons Hill, and Sir J. Miller. The Duke of Buccleuch's hounds still flourish, and the only change in that country is that in 1884 the south-western part of the country was handed over to the Jed Forest, and in 1889 the north-western part to me. I hunted it for twenty-one years. It is now known as the Lauderdale Hunt.

During the latter half of the nineteenth century a further change in the face of the country took place. During the fifties and sixties a great deal of second-class land was brought under cultivation and enclosed. Railways had come into being, and wire was introduced as a fencing material. Shelter strips were also extensively planted about the lower hill country. All these changes had their influence of one kind or another on hunting and the methods of carrying it on.

It would be impossible to deal at all with the chase in the Borders without referring, however briefly, to the sport in the hill country between Northumberland and Roxburghshire. This has long been carried on by the tenant farmers. A hunt in these hills is described in *Guy Mannering*, where all the neighbours seemed to contribute their quota to the pack, though the chase was hardly conducted on the lines that would have been approved by Beckford. Since about 1830 two families, those of Robson and Dodd, assisted by their neighbours, have hunted this wide district, and the two hunts com-

bined are now well known as the Border Hounds. The conditions in that country have perhaps altered less than anywhere else. In that open country, where there are few enclosures, very few woods or plantations, but where hounds can get little assistance from their huntsman, the qualities required in them differ a good deal from those required in hounds hunting an enclosed or woodland country, and it is very interesting to a hound lover to see the different way in which they hunt a fox. Hounds become more independent and preserve, or regain, to a certain extent the qualities which have been observed in the hunting by packs of wild dogs. In the breeding of hounds for hunting enclosed countries some of these qualities are of purpose suppressed. In 1889 one of Mr Robson's hounds, ten years old at the time, ran a fox from Ravencrag on Cateleuch, and killed him alone at White Hall in College Water, a distance of sixteen miles as the crow flies, truly a wonderful feat.

Foxes in these hills are very stout, and give hounds and their followers long and hard days, but the best of sport is the result, in which not only the horsemen but the hill shepherds and others on foot are often able to partake.

With the chase as conducted in the twentieth century I do not propose to deal. "Nim North," when he gave his description of the followers of Mr Baillie's hounds, said that he would not say anything about Mr Baillie himself, as Mr Baillie knew who he was. For that excellent reason I will not say anything about the many good sportsmen in the Borders who are still with us. There are, however, a few, now, alas! gone to "the happy hunting-grounds," whose prowess in the field I have admired, and to whom I should like to pay some tribute. I can just remember Mr Nichol Milne of Faldonside, though I never saw him in the hunting field. I was always told that in a hill run he was quite

unbeatable. Then there was William Shore, the Duke's huntsman for many years, a man who would have filled many a position with distinction. He had a wonderful eye for country, never seemed to be in a hurry, though one had to go very fast to keep up with him. I never saw anyone who could get through a wood quicker than he could. A very fine horseman, but perhaps too incapable of suffering fools gladly to be a perfect huntsman in the field. Then Mr Dove, a wonder at getting a bad horse or a young one over a difficult country. Mr C. J. Cunningham—a true descendant of the old Border raiders, a born leader of men, either in the chase or elsewhere. Major Hunter of Antons Hill, never flurried, but always close up when hounds were running; the late Lord Minto, of whom the same might be said. Mr Gideon Pott, like Mr Culley mentioned above, often speculated a good deal with great success, but was not a good man to follow unless the follower was prepared to jump some awkward places. Mr John Craig and Lord Binning, both of whom seemed sometimes to have been under the impression that they had a spare neck in their pockets; Mr James Craig, Colonel Gough, and many others.

I am glad to say that hunting still flourishes in the Borders, though under different conditions to those above referred to, and, in spite of what humanitarians may say, may it long continue to flourish, for it will be a sad day when the sound of the horn and the note of the hound—that “musical discord,” that “sweet thunder,” as Shakespeare calls it—is no longer to be heard in the Borders.

Reports of Meetings for the Year 1928.

1. THE FOUL FORDS.

THE first meeting of the year 1928 was held at the Foul Fords on Wednesday, 30th May, the rendezvous being Duns railway station. Seventy-six members and friends were present, among whom were the following: Major C. H. Scott-Plummer, President; Mr J. Hewat Craw, F.S.A.(Scot.), Sir George Douglas, and Dr M'Whir, ex-Presidents; Miss Hope, Secretary; Mrs Aitchison, Lochton; Mr J. Bishop, Mrs Bishop, Berwick; Mme Bertalot, Ayton; Miss Bromby, Berwick; Bailie Carter, Duns; Mr W. D. Clark, West Ord; Miss Caverhill, Berwick; Mr J. H. Deans, Pitcox; Mr W. S. Douglas, Mrs Douglas, Mainhouse; Mrs M. F. Darling, Priestlaw; Mr W. Douglas, Edinburgh; Mrs Erskine, Bonkyle Lodge; Mr A. Falconer, Duns; Mr W. Fortune, Ayton; Miss M. Gray, Berwick; Miss Shirra Gibb, Lauder; Mr T. Gowland, Melrose; Mr T. Gibson, J.P., Edinburgh; Miss Greet, Norham; Mr J. S. Gibson, Gullane; Major Logan-Home, Edrom; Mr J. R. Lake, East Ord; Rev. P. S. Lockton, Melrose; Miss Leishman, Linton; Miss Lewis, Ayton; Mr W. J. Marshall, Berwick; Mrs Michael, Baillieknowe; Miss J. M. Milne-Home and Miss S. G. Milne-Home, Paxton; Dr Muir, Selkirk; Mr J. C. Mather, Duns; Mr A. M. Porteous, jun., Coldstream; Canon Roberson, Mrs Roberson, Norham; Mrs Short, Old Graden; Mr W. Spark, Earlston; Mr J. Spark, Melrose; Rev. A. E. Swinton, Mrs Swinton, Coldstream; Mr E. E. P. Taylor, Pawston; Mrs D. A. Veitch, Duns.

After driving from Duns to a point half a mile east of Kettelsiel, members started on their walk. The weather was all that could be desired for the rough tramp of some six miles. A short halt was made at the Foul Fords. In these days of drainage this is only an insignificant bit of bog, but the tale lying behind the place, a mixture of legend and history, is still commemorated by a stone erected by the grandfather of Lady John Scott. The Secretary told the tale as narrated by Miss Warrender in "The Humes of Polwarth." About the beginning of 1800 the black-

smith at Longformacus was one John Neale, a man of dissolute habits and coarse speech. He had a wife and family of grown-up sons. One day Neale set out to walk to Greenlaw—a distance of eight miles—to attend the funeral of his sister. He was expected back at Longformacus early in the afternoon, but when evening came and there was still no sign of him his family began to grow anxious, and, as the hours went on, they became seriously alarmed. They sat up all through the long night, and in the early hours of the morning were startled by a great thud as of some heavy weight falling against the outer door. When the door was opened there lay John Neale—unconscious. He was wildly delirious for a day and a night, but at last recovered consciousness and asked to see the minister. When Mr Ord, at that time minister of Longformacus, came, Neale insisted on being alone with him. After a long interview the whole family were again called in, and without any explanation or reason given, John Neale demanded from them a most solemn oath that none of them would ever, after dark, cross that part of the track between Longformacus and Greenlaw known as the Foul Fords. The promise was given, and without uttering another word John Neale died. For the next ten years the eldest son Henry carried on the business of smith in Longformacus, and was as wild in language and habits as his father had been. Then there came a day when business took Henry Neale to Greenlaw. It was late in the afternoon when he started out on his return. He tried several times to persuade the Spottiswoode shepherd to go with him, but that worthy saw no sense in taking a road that was several miles out of his way. In the end Neale set forth alone, though protesting that he would rather face all the horrors of hell than cross the Foul Fords that night. He was never seen alive again. When he did not arrive home, a search was organised on the following day, and his body was found on the Longformacus side of the Foul Fords. There was no sign of injury or violence, but it appeared as though he had been running for his life, his hat, coat, and waistcoat being found at various stages along the track. After this strange tragedy the minister of Longformacus felt himself freed from the promise of silence which he had given ten years before, and told the story which had been confided to him. When John Neale was returning home on the day of his sister's funeral, he had just reached

the Foul Fords when he heard behind him the tramping of horses' feet, and looking round saw a large company of riders coming down the track two and two. When they got nearer he was amazed to see that one of the first was the sister whom he had that day seen buried, while the others proved to be relations and friends long since dead. Of the last two, one, a dark man quite unknown to Neale, was leading a horse with an empty saddle. The moment this pair reached John Neale the whole company turned on him and tried to force him to mount the led horse. There was a long and ghastly struggle, and he only escaped in the end by promising that the first of his family to cross the Foul Fords should go in his stead. Afterwards, as has been seen, he tried to prevent any of them crossing the ill-fated spot. But when the time came the soul of the son was taken in payment for the father's freedom.

The tangle of legend and history would seem to have given rise to more than one version of the tragedy, as is not unnatural after the passing of one hundred and twenty-eight years, and one of these interesting variations was related by a member present who had spent his early years in the neighbourhood, and will be found under a separate heading in these *Proceedings*.

The line of the Bedshiel Kames was then followed for some distance. Turning south, the members halted at the Camp of Blackcastle Rings, the interesting and unusual features of which were described by Mr J. Hewat Craw. A south-easterly direction was then taken in line of one of the Black Dykes of the Border Country, which is well marked here. Mr Craw stated that these ancient earthworks were found up and down the country.

Turning north-eastward to Hule Moss, two small man-aided moorland lochs were then visited. Wild geese—often seen here—were conspicuously absent, teal and redshank in small numbers being left in undisputed possession. Cars were rejoined at a point on the Greenlaw-Polwarth road. On reaching Duns, tea was in readiness at the Swan Hotel. Over 30 members sat down, the President being in the chair. Various objects of interest seen during the day were then enumerated. Among others, mention may be made of a snipe's nest with four eggs, a curlew's nest with eggs, a small adder, two female specimens and one cocoon of the Emperor Moth.

The following new members were elected : Mrs A. D. Thomson, Nenthorn ; Mr and Mrs Wm. Pate, Horscupcleugh ; Mr and Mrs R. J. Middlemas, Barndale House, Alnwick ; Rev. Wm. Warnoch, B.A., Loanhead ; Mr T. Rutherford, Berwick ; Mr E. R. Newbigin, J.P., Newcastle ; Miss E. M. Carr, Berwick ; Rev. J. R. Douglas, Eccles ; Miss M. Bywater, Kelso ; Mr Wm. Fraser, Edinburgh ; Rev. S. E. R. Fenning, Berwick ; Rev. J. T. Scrymgeour, Ladykirk ; Associate member, Mr Adam White, The Grange, Reston.

2. THE BASS ROCK.

The second meeting of the year 1928 was held at the Bass Rock on Thursday, 28th June. The rendezvous was Dunbar railway station. One hundred and fifty-four members and friends were present. Among these were the following : Mr J. Hewat Craw, Rev. J. F. Leishman, Rev. Henry Paton, and Dr M'Whir, ex-Presidents ; Miss Hope, Secretary ; Mme Bertalot, Ayton ; Mr I. F. Bayley, Halls ; Miss Boyd, Faldonside ; Mr and Mrs R. B. Bell, Northfield ; Capt. and Mrs L. S. Briggs, Melkington ; Miss Bromby, Berwick ; Mrs Bishop, Berwick ; Mr J. W. Carr, Horncliffe ; Mr W. D. Clark, West Ord ; Mrs Cowan, Yetholm ; Mrs Cresswell, Hauxley Hall ; Mr Clendining, Kelso ; Miss Caverhill, Berwick ; Mr W. Caverhill, Crichness ; Mr F. Curle, Melrose ; Mr W. Douglas, Edinburgh ; Mr J. B. Duncan, Berwick ; Mrs Darling, Priestlaw ; Mr W. R. Easton, Jedburgh ; Mrs Erskine, Melrose ; Mrs Falconer, Reston ; Mr W. Fortune, Ayton ; Rev. S. E. R. Fenning, Berwick ; Mr W. Fraser, Edinburgh ; Miss Gray, Berwick ; Mrs Glegg, Chirnside ; Miss Shirra Gibb, Lauder ; Miss Grieve, Lauder ; Mr T. Gibson, Edinburgh ; Mr J. Hood, Cockburnspath ; Major Logan-Home, Edrom ; Miss J. M. Herriot, Norham ; Mr G. Hardy, Cockburnspath ; Mr G. G. Hogarth, Ayton ; Mr T. C. Halliburton, Jedburgh ; Colonel Hope, Cowdenknowes ; Misses J. M. and S. G. Milne-Home, Paxton ; Mr R. G. Johnston, Duns ; Mr A. R. Levett, Wooler ; Mr J. R. Lake, East Ord ; Mr and Mrs J. Little, Galashiels ; Commander Lillingston, Horncliffe House ; Miss Leishman, Linton ; Mr H. Leadbetter, Jedburgh ; Miss Lewis, Ayton ;

Mr W. C. Miller, Berwick ; Mr J. Meikle, Langrigg ; Rev. A. M'Keachie, Chirnside ; Rev. J. Muirhead, B.D., Strathaven ; Dr Muir, Selkirk ; Mr E. R. Newbigin, Newcastle ; Mr A. M. Porteous, jun., Coldstream ; Mr T. Rutherford, Berwick ; Rev. Canon H. Roberson, Norham ; Mr and Mrs D. N. Richie, St Boswells ; Mrs Hew Stevenson, Miss and Miss M. Stevenson, Tuggal Hall ; Miss Sanderson, Ayton ; Rev. J. T. Scrymgeour, Ladykirk ; Mr W. Spark, Earlston ; Mrs Simpson, Edinburgh ; Rev. A. Shaw, Berwick ; Mr E. E. P. Taylor, Pawston ; Mr Murray Thriepland, Dryburgh ; Mr J. Veitch, Jedburgh ; Mr A. Walker, Jedburgh ; Miss E. C. Wilson, Duns.

The members embarked at North Berwick and were safely landed on the Rock. The weather was dull with a brisk south-west wind blowing, but this proved to be the one day in the week on which it was possible to effect a landing, and no rain marred the proceedings.

On landing, the present laird, Sir Hew Hamilton Dalrymple, pointed out and described what are left of the fortifications, which date from 1405, and spoke of the Covenanters who were confined there for periods varying from several months to six years. Mr H. Mortimer Batten, the well-known naturalist, then described in a most interesting manner the life and habits of the birds, especially the gannet or solan goose, for which the Bass is famous. During the walk and scramble round the Rock Mr Batten gave many additional details as occasion offered. It was unfortunately found necessary to cut the time rather shorter than had been arranged, owing to a fear of the wind backing. Re-embarking was a matter of some time and skill, and thanks are due to the unfailing patience and helpfulness of not only the boatmen concerned but the lighthousemen as well. A company of 61 sat down to tea in the Royal Hotel, Dunbar, when the chair was taken by Dr M'Whir in the unavoidable absence of the President. The tree-mallow had been noted during the day, and also a single tuft of the sea-beet. The lighthouse-keeper reported that a white wagtail had mated with a pied wagtail and they were nesting on the Rock. A hedge-sparrow was seen during the day. The following new members were elected: Mr Charles Webb, Morpeth ; Miss Frances Hoyle, Branxton Vicarage ; Mrs J. G. Croal, Thornton.

3. LOCH SKENE.

The third meeting of the year 1928 was held at Loch Skene on Wednesday, 25th July. The rendezvous was Selkirk railway station, and 136 members and friends took advantage of the fine day. Among the members present were the following: Major C. H. Scott-Plummer, President; Rev. J. F. Leishman, Rev. W. M'Conachie, D.D., Rev. H. Paton, Mr. J. A. Somervail, and Dr M'Whir, ex-Presidents; Miss Hope, Secretary; Mrs Anderson, Earlston; Lady Biddulph, Melrose; Miss Bromby, Berwick; Mr and Mrs R. B. Bell, Northfield; Miss Bywater, Kelso; Mr F. Curle, Melrose; Mr and Mrs W. S. Douglas, Mainhouse; Mrs Erskine, Melrose; Mr A. Falconer, Duns; Mr T. Gibson, Edinburgh; Miss Grieve, Lauder; Mr A. M. Garden, Berwick; Miss Gray, Berwick; Mr P. H. Gladstone, Berwick; Mr T. Gowland, Melrose; Mr G. Hardy, Redheugh; Miss Holmes, Berwick; Mr J. and Miss Hood, Linhead; Mr J. L. Hilson, Jedburgh; Miss Leishman, Linton; Mr A. R. Levett, Wooler; Mr J. R. Lake, East Ord; Rev. P. S. Lockton, Melrose; Mr J. C. Mather, Duns; Mr and Mrs C. P. Martin, Wooler; Mrs M'Conachie, Lauder; Mr W. C. Miller, Berwick; Miss Newton, Earlston; Mr C. S. Petrie, Duns; Rev. Canon H. and Mrs Roberson, Norham; Mr D. Rodger, Muircleugh; Mrs Short, Old Graden; Mr J. R. Simpson, Selkirk; Mr J. Spark, Melrose; Rev. A. E. and Mrs Swinton, Coldstream; Mrs Turnbull, Lauder; Mrs D. A. Veitch, Duns; Mr J. Veitch, Jedburgh; Mr and Mrs T. Wilson, Hawick.

The twenty-five miles of road from Selkirk had all been covered in the course of previous meetings, but the scenery and associations which surround and haunt it made on this account only the greater appeal to eye and imagination. Members left the cars at Birkhill and crossed by the Watch Hill to Dobb's Linn. This is the scene of several Covenanting exploits of a legendary nature. Hogg in *The Brownie of Bodsbeck* makes "Katie Laidlaw" conceal a party at this place, keeping them supplied with food and other necessities. An encounter between two Covenanters and the devil is also located here.

"Little kenne'd the wirry cow
What the Covenant could do,
Or he had never shown his face,
His reeked rags and riven taes
To men o' faith and men o' sense,
Men o' micht and men o' fence,
For Hab Dob and Davey Dunn
Dang the deil o'er Dobb's Linn.

Weir quo' he and weir quo' he,
Haud the Bible till his ee'.
Ding him o'er and throosh him doon,
For he's a faus deceitfu' loon.
Then he o'er him and he o'er him
He o'er him and he o'er him,
Habby held him gruff and grim,
Davey throoshed him loof and limb,
Till like a bunch o' barket skin,
Doon flew Satan o'er the Linn."

Dobb's Linn is of great geological interest and importance, being a post-glacial ravine in which the beautifully exposed strata contain a complete succession of zones with rich and characteristic fauna of graptolites. A stiff climb of about $1\frac{1}{2}$ miles brought members to Loch Skene, lying grey and lonely 1650 feet above sea-level, and surrounded by some of the highest hills in the south of Scotland: White Coomb, 2695 feet, Loch Craig Head, 2625 feet, and Moll's Cleugh Dod, 2571 feet.

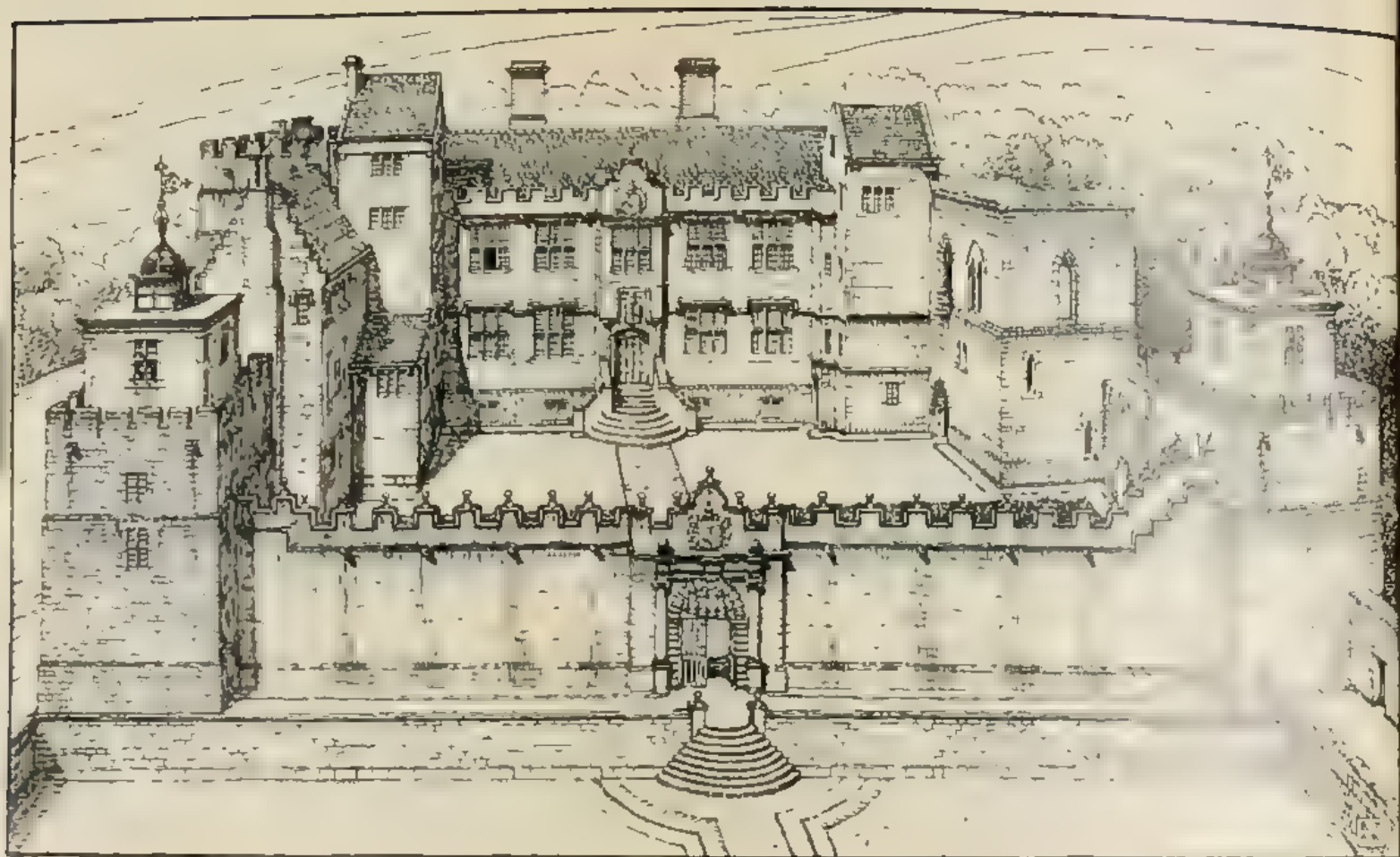
This is the first occasion on which the Club has visited Loch Skene. The loch is $\frac{3}{4}$ of a mile long and less than a $\frac{1}{4}$ wide at its widest part, and owes its existence to the moraines left by the glaciers which occupied the Tail Burn valley. There was, unfortunately, not time to explore the high ground to the north and west of the loch for botanical treasures, but an interesting number were gathered on the walk down by way of the burn to the Grey Mare's Tail. Some parts of the way proved steeper and less firm than members—in spite of due warning—had quite anticipated, but all got down in safety to the highway, where they rejoined the cars, and were rewarded by a fine view of the waterfall and Moffatdale. The good turn-out of members taxed the historic Tibbie Shiels Inn to its utmost in providing tea; but the first and last rule of the Club in regard to good humour and courtesy was so well observed, that the

delay occasioned by water which refused to be hurried in its effort to reach boiling-point was taken in a spirit of toleration greatly appreciated by the Secretary. Botanical finds during the day were *Oxyria reniformis* (Kidney Sorrel), *Sedum Rhodiola* (Rose Root), *Thalictrum alpinum* (Alpine Meadow Rue), *Melampyrum sylvaticum* (Cowanwheat), *Sedum villosum* (Hairy Sedum), *Allosorus crispus* (Parsley Fern), *Hymenophyllum tunbridgense* (Tunbridge Fern), *Rubus chamamorus* (Cloudberry). The rare fern *Woodsia ilvenses*, which, during the sixties of last century, was preserved by shepherds of the district and sold to ruthless collectors, has not been located for many years.

4. FORD AND ETAL.

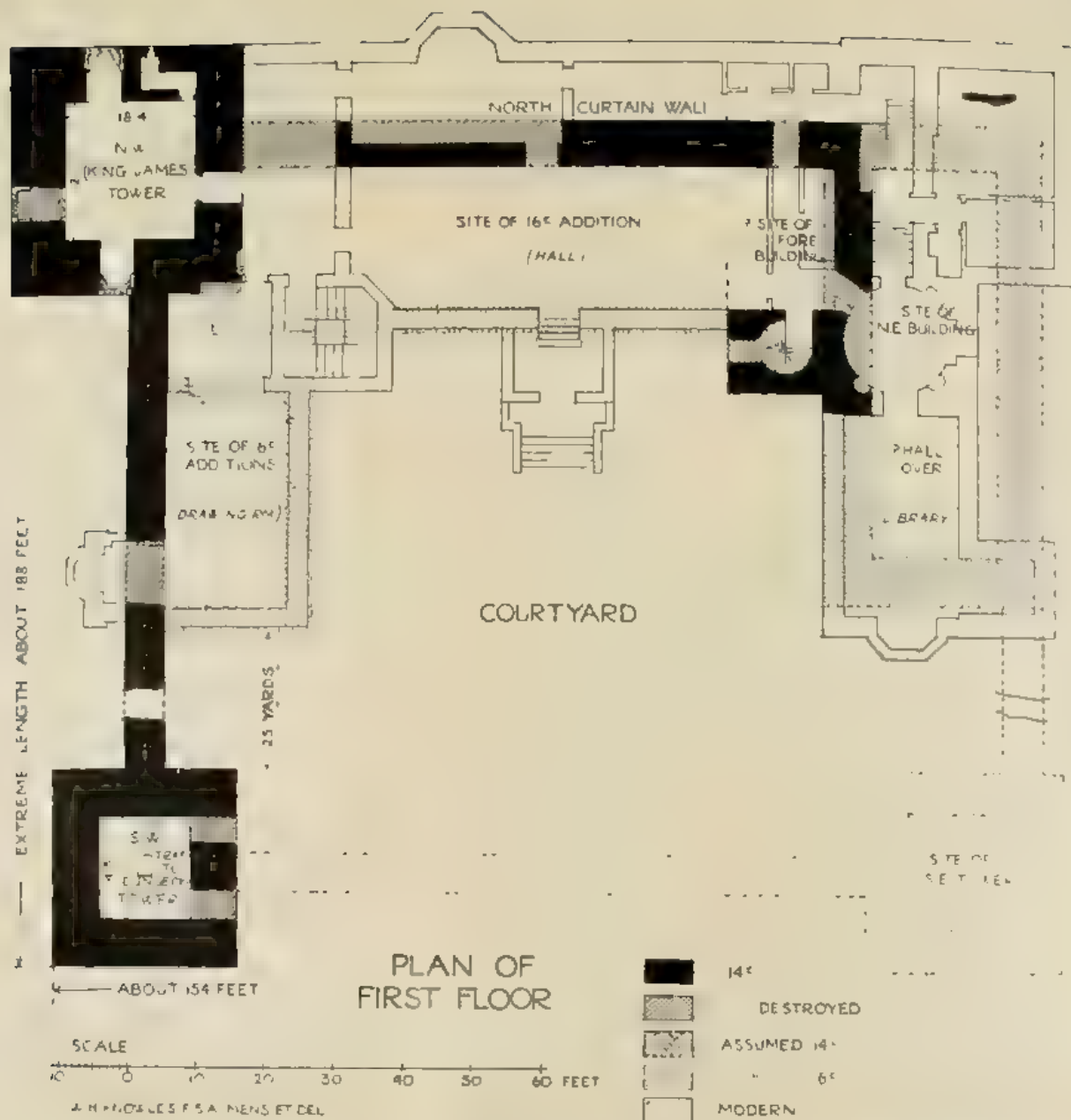
The fourth meeting of the year 1928 was held at Ford and Etal, the rendezvous being Wooler railway station. It was a beautiful morning, and 150 members and friends turned out, among whom were the following members: Major C. H. Scott-Plummer, President; Rev. J. J. M. L. Aiken, Rev. W. M'Conachie, D.D., Mr J. A. Somervail, Dr M'Whir, ex-Presidents; Miss Hope, Secretary; Mr J. G. Archer, Alnwick; Mrs Aitcheson, Lochton; Lady Biddulph, Melrose; Captain and Mrs L. S. Briggs, Melkington; Mr C. H. Hunter Blair, Newcastle; Miss Bywater, Kelso; Mrs Caverhill, Reston; Miss Caverhill, Berwick; Mrs Calder, Marigold; Mr R. Carmichael, Coldstream; Miss Clay, Tillmouth; Misses C. M. and A. Fenwicke Clennell, Barmoor; Mrs Cresswell, Hauxley Hall; Mrs J. G. Croal, Thornton; Mrs Darling, Priestlaw; Captain G. Davidson, Norham; Sir George Douglas, Springwood Park; Mr and Mrs W. S. Douglas, Mainhouse; Mrs Erskine, Melrose; Mr W. R. Easton, Jedburgh; Miss Fleming, Kelso; Mr T. Gibson, J.P., Edinburgh; Miss Shirra Gibb, Lauder; Miss Gray, Berwick; Misses J. M. and S. G. Milne-Home, Paxton; Mr T. C. Halliburton, Jedburgh; Mr R. Kyle, Alnwick; Mr R. Lake, East Ord; Mr A. R. Levett, Wooler; Commander Lillingston, Horncliffe House; Mrs M'Conachie, Lauder; Miss Martin, Ord Hill; Mrs R. Middlemiss, Alnwick; Mr W. W. Mabon, Jedburgh; Mrs Temple Muir, Melrose; Mr L. Newbigin, Alnwick; Mr E. R. Newbigin, Newcastle; Mrs Pearson, Otterburn; Mr C. S. Petrie, Duns; Mr A. M. Porteous, jun., Coldstream; Mrs Short,





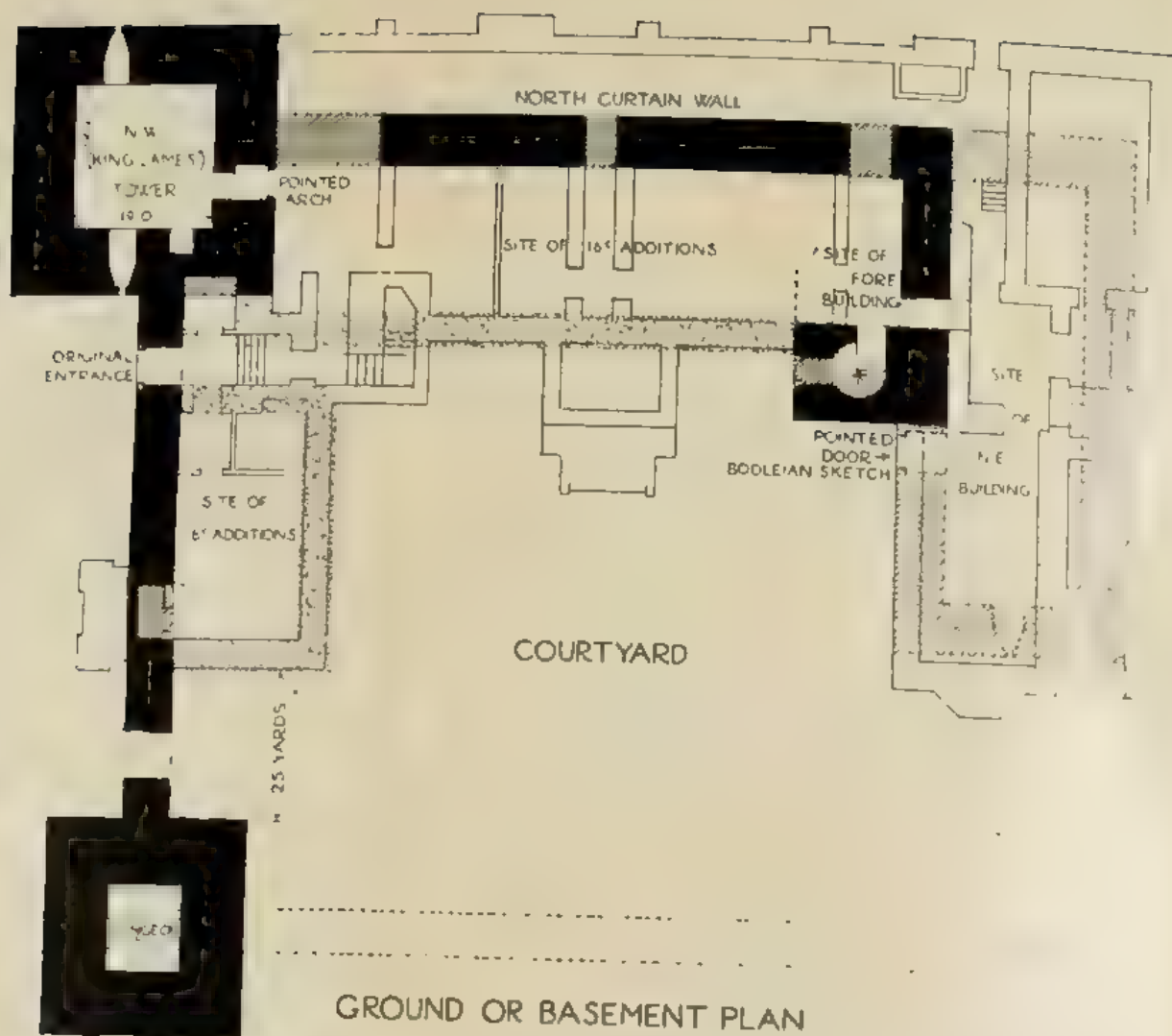
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W.H. KNOWLES F.S.A. MENS. ET DEL.

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Old Graden; Mr T. B. Short, Belford; Colonel Scott-Ker, Melrose; Rev. J. T. Scrymgeour, Ladykirk; Mr T. C. Smith, Berwick; Mr J. E. T. Smith, Berwick; Misses S. and M. Stevenson, Tuggal Hall; Captain G. Tate, Brotherwick; Mr T. M'Gregor Tate, Berwick; Mrs Turnbull, Eastfield of Lempitlaw; Mr E. Thew, Gosforth; Mr E. E. P. Taylor, Pawston; Dr Voelcher, London; Miss Waller, Hauxley Hall; Mr J. S. Watson, Easter Softlaw.

The picturesque little village of Etal, which was first visited, looked with its thatched roofs and gay flower gardens as though transplanted from some southern county. Mr C. H. Hunter Blair brought the past vividly before his hearers when pointing out the remains of the Castle and recalling its history. Etal Castle, or the remnants of it, stand to-day as they did in the fourteenth century, and it is well to remember that these castelated manors were in reality the seats of the country gentlemen of the period, as well as fortresses, though Etal took its place in the second line of defence during the troublous times of the sixteenth century.

A move was next made to Ford Castle, which had been generously thrown open to the Club by Lord Joicy. Here again all the points of historic interest were inspected, and most interestingly described by Mr C. H. Hunter Blair. The drawing herewith shows the sort of Jacobean or Elizabethan manor house which Ford became after it was burnt by James IV and restored first by the Carrs and then by the Blakes.

It was unfortunately raining rather heavily when members left the Castle, but the church and school, which were included in the day's programme, being within a few hundred yards of the mansion, the pleasure of the day's outing was only slightly marred. A return was made by way of Doddington to Wooler, where tea was in readiness at the Cottage Hotel. Over 30 members sat down, with the President in the chair. One vacancy having occurred, Dr James Clark, Kilmarnock, was duly elected.

5. PRENDWICK.

The fifth meeting of the year 1928 was held at Prendwick on Wednesday, 12th September, the rendezvous being Hedgeley railway station. The weather was in every way ideal, and some

65 members and friends took part in the day's programme. Among those present were the following members: Mr R. C. Bosanquet, Mr Jas. Hewat Craw, ex-Presidents; Miss Hope, Secretary; Mr J. E. Archer, Alnwick; Lady Biddulph, Melrose; Miss Caverhill, Berwick; Mrs Cowan, Yetholm; Mr W. D. Clark, West Ord; Mr W. R. Easton, Jedburgh; Miss Fleming, Kelso; Miss Gray, Berwick; Mr H. B. Herbert, Falloden; Mr J. R. Lake, East Ord; Mr R. Middlemiss, Alnwick; Dr Muir, Selkirk; Mr W. Oliver, Jedburgh; Mr A. P. Oliver, Jedburgh; Rev. Canon and Mrs Roberson, Norham; Mrs Roberts, Selkirk; Mrs Short, Old Graden; Mr H. R. Smail, Berwick; Mr T. C. Smith, Berwick; Mr J. E. T. Smith, Berwick; Miss Wilson Smith, Duns; Mrs Stevenson, Misses S. and M. Stevenson, Tuggal Hall; Mr E. E. P. Taylor, Pawston; Mr E. Thew, Gosforth; Mr J. Tweedie, Berwick; Miss Waller, Hauxley Hall.

Those who were prepared for a walk of some five miles left the road a short distance above Ingram, and climbing a steep bit of hill reached an interesting British camp which lies 900 feet above sea-level. Mr Jas. Hewat Craw pointed out and described the camp, drawing attention to the strong double rampart of built stone surrounding it, which was well exposed at one spot where excavations had recently been made, showing the dry stone building of the inner rampart, presumably once from 10 feet to 12 feet in height. It was suggested that the purpose of double facing was to strengthen the wall and prevent it from falling outwards through sheer weight. Another feature was the cross-wall between the inner and outer ramparts. It was also interesting to note that here—as occasionally in other Cheviot Hill camps—a trench had been cut some distance outside the camp, this feature being found from a quarter to half a mile away, where there was a narrow neck to be defended. Two hut-circles were clearly visible inside this fort, while there were two or three just beyond the outer rampart, which were doubtless occupied in times of peace by people who came inside the fort when necessary. A peculiar feature of this camp was the entrance being from the shield side.

In the immediate neighbourhood, on the hills between the Breamish and the Aln—an area of from three to four miles only—there are twenty hill-forts. These lie, as in other parts

of both England and Scotland, along what were from the earliest times the great trade routes.

Lower down a second camp was visited. The entrance here was very clearly defined, the large boulders being still in position, but the remainder of the camp was much overgrown. No excavations having been so far attempted, it was difficult to tell of what the camp consisted.

Members then crossed by the western shoulder of Cochrane Pike, and on reaching the watershed of the Breamish and the Aln were rewarded by a really wonderful view. Hills stretched out on all sides as far as the eye could follow, while the wide sky shone with the still, harvest-coloured sunlight of September. Many members would have willingly spent the afternoon there, but after a short interval the descent to Prendwick had to be made, as cars were waiting to convey them to Alnham. This remote little village lies near the source of the Aln, and only six miles from the Scottish Border. It had been hoped that Mr C. H. Hunter Blair would describe the ancient glories of Alnham, with its church dating from 1135, its two towers and Castle mound, but greatly to his own and his fellow-members' regret he was prevented at the last moment from being present. Fortunately, his notes were put into the hands of the Secretary at the church door. Alnham has been fully detailed elsewhere in our *History*, and mention need only be made of parts of an ancient grave-slab with foliated cross which has been built into the north wall above the vestry door, and also of a grave-cover in the floor at the west end of the church.

HEYRLYESGEORG | EADDEROFPR
 E | NDICKSONETO | ROBERTADDER | G
 ENTDYERY | DINGTHROWG | HTHE
 WATER | ATKELSO THE | FORDCAIED
 H | EMP*SEIDFOR | DINTWEADO†A | SST
 AWAAND | FOWNDBENEAT | HATSH
 ARPPIT | LAANACASTIN | AWATHEX
 VOFF | EBWARYANOD | OMENE 1611 |
 ALLAYDANDP | RAYESBTOT | HELORD
 AND | SOP†OVRTH.

* P or R ? Hempseid Ford or Henderside Ford ?

† Evidently for C.

‡ Evidently for F.

“ Here lies George Adder of Prendwick son to Robert Adder drowned riding through the water at Kelso, the ford called Hempseed Ford in Tweed cast away and found beneath at Sharpitlaw, cast in the water 5th of February anno Domino 1611.—? and prayers to the Lord and so forth.”

A move was next made to Whittingham, some five miles lower down the Aln. There also Mr Hunter Blair was to have described what now remains of the ninth-century church. It is strange and grievous to think that so late as 1841 the whole of the upper part of the Saxon tower with its double window, and practically all the Norman work which had been added, was removed, in despite of advice and remonstrance by the most eminent antiquaries. The organ was at one time of the barrel type, three barrels per month, which supplied ten tunes, being the allowance.

Tea was in readiness at Bridge of Aln Hotel, where a company of over 30 joined in recalling the sights and events of the day.

Two vacancies having occurred, Mrs Scott-Plummer, Sunderland Hall, and Rev. George Campbell, Manse of Cranshaws, were duly elected.

6. BERWICK.

The annual business meeting of the year 1928 was held at Berwick on Wednesday, 3rd October. One hundred and two members and friends were present, among whom were the following: Major Scott-Plummer, President; Rev. J. J. M. L. Aiken, Mr Jas. Hewat Craw, Rev. J. F. Leishman, Rev. Dr W. M'Conachie, Dr M'Whir, ex-Presidents; Miss Hope, Secretary; Mrs Aitchison, Lochton; Mr and Mrs J. Bishop, Berwick; Mr C. H. Hunter Blair, Newcastle; Miss Bromby, Berwick; Miss Clay, Tillmouth; Mr W. D. Clark, West Ord; Mr J. W. Carr, Berwick; Mrs Cowan, Yetholm; Mr Curle, Melrose; Miss Caverhill, Berwick; Mr C. Cairns, Alnwick; Misses C. and A. Fenwicke Clennell, Barmoor; Mrs Cresswell, Hauxley Hall; Mr J. C. Collingwood, Cornhill; Mrs Darling, Priestlaw; Mr W. J. Dixon, Spittal; Mr R. H. Dodds, Berwick; Mr J. B. Duncan, Berwick; Mrs Fleming, Berwick; Miss Fleming, Kelso; Mr W. Fortune, Ayton; Mr T. H. Gladstone, Berwick; Miss Gray, Berwick; Miss Greet, Norham; Miss M. Gray, Berwick; Miss Grieve, Lauder; Dr H. Hay, Gifford; Miss

Hayward, Galashiels ; Major and Miss Logan-Home, Edrom ; Miss Herriot, Norham ; Misses J. M. and S. G. Milne Home, Paxton ; Mr P. W. Hume, Murton White House ; Captain Fullarton James, Morpeth ; Mr R. G. Johnston, Duns ; Mrs Johnson, Berwick ; Mr R. Kyle, Alnwick ; Mr J. R. Lake, East Ord ; Miss Leishman, Linton ; Mr A. R. Levett, Wooler ; Commander Lillingston, Horncliffe ; Miss Martin, Ord Hill ; Mrs M'Conachie, Lauder ; Mr W. C. Miller, Berwick ; Dr Muir, Selkirk ; Rev. Canon and Mrs Roberson, Norham ; Mrs Roberts, Selkirk ; Mr T. Rutherford, Berwick ; Colonel Scott-Ker, Melrose ; Mr T. B. Short, Belford ; Mr H. R. Smail, Berwick ; Mr T. C. Smith, Berwick ; Mr J. D. Smith, Peelwalls ; Mrs Stevenson, Misses S. and M. Stevenson, Tuggal Hall ; Rev. J. T. Scrymgeour, Ladykirk ; Mr T. M'Gregor Tait, Berwick ; Mr E. E. P. Taylor, Pawston ; Mr and Mrs T. Wilson, Hawick.

Members drove to Camphill, and from there walked a short distance to the top of Halidon Hill. Unfortunately, though the morning was fine and extremely pleasant, a haze hung over the sea and more distant landscape. This was disappointing, as a very fine view can be obtained from this historic height in favourable weather. Dr M'Whir retold the story of the memorable fight, and then led the way to an ash-tree at Sanson Seal, which legend says was the identical tree to which Edward tied his horse seven centuries ago. "One must always deal tenderly with tradition, for though it may not conform with truth, it embodies local beliefs as to what the truth should be," was Dr M'Whir's verdict.

A return was then made to the King's Arms Hotel, where lunch was served to a large company. The President called for the two time-honoured toasts, "The King" and "The Club," and thanked Dr M'Whir for adding to the interest of the morning's expedition.

In the small assembly room of the hotel the usual business was then proceeded with. The President read his address, and nominated Mr C. H. Hunter Blair, M.A., F.S.A., as his successor. Mr Blair in accepting office thanked Major Scott-Plummer for the honour, and the members for the very kind way in which they had received the nomination. He would like to point out, however, that he was a townsman, and that Newcastle was a long way from Berwick. Both of these considerations were to

his mind disqualifications for the office of President. But in accepting he was conforming with the spirit of the Club's good old rule that all members should bring to it "good humour, good behaviour, and a good wish to oblige."

Mr Blair then thanked Major Scott-Plummer for his address on "Hunting in the Borders," a subject which had never before been dealt with by any of the Presidents of the Club.

The Secretary's Report was then read.

SECRETARY'S REPORT FOR 1928.

In spite of a season in which the weather has consisted of "depressions" the meetings have been fortunate—two outstandingly fine days, two in which cloud and wind predominated over the sun's efforts, and one only on which a fine morning changed to heavy rain at two o'clock. The attendance has been good: May meeting 75, June 154, July 136, August 150, September 65, October 102.

Since our last business meeting the Club has lost by death 11 members, among whom George Muirhead, LL.D., F.R.S.E., F.Z.S., F.S.A.(Scot.), and Howard Pease, M.A., F.S.A., may perhaps be specially mentioned as having done much good work for the Club; Mr Charles H. Holme, Mr James A. Waddell, Rev. R. C. Inglis, Mr George G. Turnbull, Mr W. E. Riddell, Mr John Thin, Mr Gideon J. Gibson, Mr Russel Simpson, Dr John C. Johnstone, Mr Henry Rutherford.

Twenty-one new members have been elected during the year. The membership remains at 400, with 1 corresponding member, 6 honorary lady members, and 3 associate members. There are at present 5 nominations on the waiting list.

Ornithology—WAXWING (*Ampelis garrulus*).—Two of these circumpolar migrants spent three weeks in the close vicinity of Morebattle village during November last. They fed on dog-hips by the side of the public road. They were constantly seen by many persons, and appeared to be quite fearless of human presence. They were not seen again after the snow came.

The *Scottish Naturalist* reports that seven were seen in Penmanshiel Woods on 27th November, twenty at Dunglass Mill from the 15th to the 20th of November, and again

in the same district several were seen on the 27th of December.

JAY (*Garrulus glandarius*).—A specimen was seen at Hutton Bridge in March.

GREEN SANDPIPER (*Totanus ochropus*).—Mr J. T. Craw reports seeing one at Whitsome Hill on 7th September of this year. The *Scottish Naturalist* notes that two were seen by the Leader during the second week of October 1927, and one at The Hirsell in December of the same year.

GOLDFINCH (*Carduelis elegans*).—Dr M'Conachie reports that this species would seem to be on the increase in Lauderdale. He has heard and seen one or more from time to time, and on one occasion a brood, which would seem to show they were nesting in the district.

WOODCOCK (*Scolopax rusticola*).—Mr Adam White reports that on the farm of Lumsdaine close by the coast nearly a hundred woodcock were flushed on the 11th April 1928, and remarks that the usual time for the first flight is between the first week in November and the end of December. He intends, therefore, to make a point of visiting the same spot in April next year, as he believes there is still much to learn in regard to the habits of woodcock.

DOTTERAL (*Eudromias morinellus*).—Mr John Bishop reports a specimen seen near Berwick during the spring. Also a shot bird which proved to be the Honey Buzzard (*Pernis apivorus*), got at Edington Hill about the end of August.

Mr A. Falconer reports from Duns: A waxwing was seen at Hanington Mains on 18th January. A number of goosander (*Mergus merganser*) were seen on the Whitadder towards the end of January, and one was shot at Hoardweel.

SWIFT (*Cypselus opus*).—Mr Falconer reports one seen on 27th April, this being unusually early, 5th and 6th May being the general dates of arrival. Most swifts were gone by 14th August, all by the 17th this year.

FIELDFARE (*Turdus pilaris*) were late in leaving this spring, being seen as late as 13th May.

WOODCOCK.—A very late nesting is reported from Bonkle. One was sitting on 14th July.

A BUZZARD was seen by Colonel Trotter over Charter Hall Big Wood at the end of August.

A HAWFINCH (*Coccothraustes vulgaris*) was picked up dead at Charter Hall, having been "wired" in the neighbourhood of the house.

A PIED FLYCATCHER (*Muscicapa atricapilla*) again nested in the Duns Castle Woods this season. It was seen on 29th April.

BERNICLE GOOSE (*Bernicla leucopsis*).—Four were seen at Dunglass in April.

ALLIS SHAD.—In April 1928 a specimen was taken in the salmon nets at Yard Ford Fishery, Horncliffe. This member of the Herring family has been known to attain a length of 4 feet, but this specimen measured only 18 inches, being the usual length of those caught in British waters. It is becoming gradually more rare on our coasts owing, it is believed, to the pollution of so many of our rivers in which it was used to spawn.

SHARK (*Porbeagle*).—A specimen almost 4 feet in length was caught in the salmon nets at Garde Fishery.

Botany.—There is nothing new to report in the country of the Club, but it is interesting to note that Mr George Taylor, Chapel Hill, has found the bird's-nest orchis (*Neottia nidus-avis*) in more abundance at Dunglass this year than for a long time past. Mr Taylor also reports it as still to be found at Redcleugh, Pease Dean, the station discovered by Dr Hardy. *Vicia oribus* and *Linnaea borealis* still hold their own at Grant's House. The spindle tree (*Evonymus europæus*) reported in our *Proceedings* of 1835 still grows in Tower Dean and Pease Dean.

HAIRY BITTER CRESS (*Arabis hirsuta*) was found near Hailes Castle this season. It has only once been recorded in our *Proceedings* (1866).

CORAL ROOT (*Corallorhiza innata*).—On visiting Newham Bog this summer Mr Taylor failed to find this species.

Mr R. H. Dodds submitted the financial statement, which showed an income of £243, 11s. 1d., and a balance on the year's working of £4, 18s. 11d. The Club has a deposit receipt for £310.

Mr J. H. Craw moved that Mr G. P. Hughes, Middleton Hall, Wooler, be elected as a corresponding member of the Club. Mr Hughes had been a member for over seventy years (1856), which was quite a record for the Club. He had done a great deal of good work for the Club, though now, owing to failing

health, he could no longer attend the meetings. It would be an honour to have Mr Hughes's name on their list of corresponding members. (Applause.)

Mr John Bishop, who went as delegate from the Club to the meetings in Glasgow in September of the British Association, gave an interesting account of his impressions of the meetings, which he had so greatly enjoyed. What struck him most was the number of ladies who took part in the meetings and gave addresses. In the early days of the Association women were not even allowed to attend the meetings; but all that had changed, and some of the most interesting addresses were given by the women. He gave points in the address of Sir William Bragg, and spoke of the great interest he had had in hearing Sir Oliver Lodge, the distinguished scientist, give an address in Wellington Church, Glasgow, on the Sunday morning.

Mr Bishop took the place of Mr G. G. Butler, Ewart, who was appointed delegate, but whose health would not allow him to attend. Mr Bishop expressed regret that Mr Butler had been unable to go, and mentioned that two other of the Club's members had attended the meetings this year—the Rev. H. Paton, Peebles, and Mr W. Fortune, Ayton.

Major Scott-Plummer thanked Mr Bishop for his address.

Suggestions for meetings for 1929 included the Mutiny Stones, Brinkburn Priory, Rothbury and Craggside, Alnwick, The Hermitage, The Coquet, and a walk into Wooler; a day on Cheviot and a day in the Oxtun district.

A choice was, as usual, left to the President and officials.

The following new members were elected: Miss Margaret Garden, Berwick; Miss C. M. Briggs, Thorington; Miss F. Hoyle, Branxton; Mr P. Mercer Hume, Ord; Mrs J. C. Glegg, Maines, Chirnside; Mrs J. A. M'Creath, Gainslaw, Berwick; Mr J. H. Herbertson, Fawside, Gordon.

THE STORY OF THE FOUL FORD.

A LAMMERMOOR TRAGEDY.

By THOMAS GIBSON, J.P.

THE FOUL FORD is about midway on the road through the North Moor from Greenlaw to Longformacus. In olden days the road was a good deal in use, but for a long time there has been, and is, only an occasional traveller. The cessation of all vehicular traffic, with the disintegration of the adjoining banks, has practically obliterated all traces of the Ford. There is associated with the place a grim tragedy which in its eeriness, its diablerie, is suggestive of the Black Forest legends of Germany. The story is not of hoary antiquity, there being people still alive who have faint recollections of its happening, while others (of whom the writer is one) have heard it related by different persons, all of whom were living at the time and acquainted with the details, some more, some less. The story is an illustration of the readiness in some minds to accept the supernatural, and how deeply rooted are those primal passions of superstition and fear.

In the early years of last century there came, as a stranger to Longformacus, a man named John Neale or Neill. It was generally believed that he hailed from the North, from which he had been either forced or had thought it prudent to leave owing to some misdemeanour. He got work with the local blacksmith, settled down as one of the community, and ultimately succeeded to the business. He was of a morose disposition, and after a while became a very hard drinker, spending much of his time in the public-house, or with boon companion drinkers. One day he attended the funeral of his sister at Greenlaw. After the burial, following the general custom of those days, an adjournment was made to the public-house. Here Neill remained till late in the evening, and darkness was falling when he set out on his lonely walk to Longformacus. Those at home,

only too well accustomed to his drinking habits, anxiously awaited his return. It was near midnight when his wife heard a footstep, followed by something like one groping at the door, then a thud on the ground. On going to the door, she found Neill lying quite unconscious. He was taken into the house, and, in the brighter light, the members of the household were struck with the wild, almost maniacal expression of terror in his look. His body was rigid, his eyes wide and glaring, teeth clenched, and foaming at the mouth. He was undressed and put to bed. All through the night he lay in an unconscious state. Ever and anon there would be a violent shuddering of the body as if impelled by some powerful emotion, while at intervals he would utter strange, incoherent, unintelligible sounds.

In the morning a doctor was called in, and the circumstances explained. The case, however, was beyond his power, and he told the family to prepare for the worst. Some time after the minister of the parish was sent for and taken to the room where the sick man lay. He engaged in prayer, and in the course of his invocations Neill suddenly looked up in a wild state, but with some glimmering of intelligence. He recognised the minister, and at once ordered all but him to leave the room. When, after a short while, the family were admitted, all that Neill said to them was: "Never pass the Foul Ford after dark." Then drawing himself up in bed, he gave a short convulsive struggle and expired.

The sudden death, and the mystery surrounding it, caused a great sensation in the village, but the years passed on, weakening the memory. A son, Henry, succeeded to the business. He has been represented in some quarters as drunken and dissipated like his father, but this is not correct. In the vernacular of the district, he was "a rough-spoken man," but by no means dissipated. Henry, one day some years after his father's death, had occasion to go to Kelso. After his business had been transacted, he came up to Greenlaw on his way home. Here he called on an acquaintance, James Richardson, long the parish church officer and grave-digger, who died in 1885, at the age of ninety-five. This man told the writer that after Neill had got his tea he convoyed him part of the way. For one walking to Longformacus the natural and nearest road is by what is known as the Moss Road, which, striking off the

main road to Duns, near the top of the hill from Greenlaw, and going through the moor, saves about seven miles. When the two came to this place and "good-nights" were exchanged, Neill made to go by the turnpike road. "Where are ye gaun? that's no' the road," said Jamie. "Oh," says Neill, "ye ken we're never tae gang past the Foul Ford after dark." On being assured by Richardson that he had plenty of time to do this, Neill said he would risk it. This was the last thoroughly authenticated time Neill was seen alive. A story that the Spottiswoode shepherd had seen Neill some distance from the Ford, and had refused to accompany him past the Ford, on the ground that it would take him too far off his way, I cannot vouch for.

The way across the North Moor, especially when the shades of evening begin to fall with the frequent mists which prevail, is lonely and eerie. All round is a wide expanse of moor. The silence characteristic of the place is broken only by the occasional bleat of a sheep, the cry of a bird, or the shrieking sound of the wild geese "chanting their dol'rous notes" as high overhead they wing their way to the Hule Moss. It is easy to conceive how as Neill approached the place of ill omen, sights and sounds would to his vivid imagination easily assume the unreal which a superstitious fear would convert into the supernatural. As Neill never reached Longformacus, some people came down to Greenlaw early the next morning to inquire if he had passed there. On being informed that he had, the party from Longformacus was joined by others from Greenlaw, who set out on the search. When they came to the vicinity of the Foul Ford someone found Neill's cap, a little farther on his vest, and near a bush his dead body. Curiously enough, although the vest had been removed the coat was on. The body showed no traces of violence, but the features were fixed and rigid with all the signs of being terror-stricken.

The death caused a great sensation, and naturally recalled the mysterious end of the father. The minister of Longformacus, who was still alive, therefore thought he was justified in relating the story told him by the father on his deathbed.

John Neill's story was to the effect that, on his way home from the funeral from Greenlaw, as he was nearing the Foul Ford, he saw what appeared to him through the weather "glim"

a dark object approaching, apparently from the neighbourhood of Kyles Hill. As he advanced the object appeared to be coming towards him, and when it assumed outline, he saw what he thought was a hearse drawn by four horses. There was no driver, but when it came close to him he was horrified to see the figure of the corpse which he had that day seen buried at Greenlaw, and by her side another, whom he shuddered to describe—the Evil One with the hoofs and horns ascribed to him by popular imagination. They urged him to join the cavalcade. This, however, he refused, and fled, followed by the ghastly company, until as he dashed through the Ford they vanished. Before, however, they disappeared, they uttered the threat to Neill that the first member of his family who passed that way after dark would be taken. Neill remembered no more, or of how he got home, until he was awakened by the unwonted voice of prayer.

For long years the Foul Ford was a place of ill omen, and there were few acquainted with the story who cared to pass near it alone after dark. In my younger days there were some even who felt it eerie to do so in the daylight unless they had company. By the younger generation of the district, however, of the present day, the story of the Foul Ford is well-nigh forgotten. The stone to mark the place where Neill's body was found was erected by Mr John Spottiswoode of Spottiswoode, the father of Lady John Scott of "Annie Laurie" fame. There it stands in the wide and lonely moorland, a grim reminder of the mysterious tragedy.

In the *Berwickshire News* of 9th April 1929 there appeared a letter sent by a Mr Howard Sprague, Rochester, New York, U.S.A., to the Secretary of the Longformacus Curling Club. In this letter the writer said that in "spading the garden one day, about two years ago, I dug up what turned out to be a silver medal. Cleaning the medal revealed the following inscription: 'Presented to the Longformacus Curling Club by D. W. Brown, Patron. To be competed for annually. 1855.' On the reverse side . . . these words, 'Won two years in succession by T. M. Neil.'" The writer also stated that, though he could keep this lucky find, he had got the idea that it would have a higher sentimental value to the Longformacus Club, and that he would

be happy to send it if they felt enthusiastic about having the little prize. In a comment on the letter it is suggested that Mr Sprague has misread the name, which should be J. M. Neil. There was at that time a John Neil resident in the village—the last tenant of the Longformacus Inn—after quitting which he emigrated to the United States. This confirms the impression that the Neil family left the district shortly after Henry's mysterious death, and in a way approximates the date of the tragedy. How strange the vicissitudes of the medal. Crossing the seas, its loss, being found by the casual overturning of spade, and its ultimate restoration to the Club.

AN AUSTRALIAN PIONEER.

A special Pioneer's Number of *The Victorian Historical Magazine*, issued in December 1927, contains numerous extracts from the diary of Mr Thomas Y. Greet of Mirch Hill, Norham-on-Tweed, an early member of the Berwickshire Naturalists' Club.

Accompanied by a brother, Mr Greet landed at Adelaide in October 1860, and sailed from the same port for England on 4th November 1861. In January 1861 the travellers visited the Blanche Caves, Mosquito Plains, where they saw a mummy supposed to represent a native who had been shot by settlers fifteen years before, and who had crawled into a cave to die. From a newspaper cutting of September 1861 preserved by Mr Greet, we learn that this had been stolen, but that the thief had been "met by the Crown Ranger while he was carrying away the mummy, which looked like a hasp upon his back." The Ranger procured a warrant, and the culprit "was detained and obliged to deliver his grim booty, which now lies at our Police Office." "We consider," comments the newspaper editor, that "the Ranger discharged a public duty in detaining the mummy, which had become, by a kind of prescriptive right, public property."

During his stay in Australia Mr Greet enjoyed the friendship of the Rev. Tenison Woods, author of *Geological Observations in South Australia* (1862) and of a *History of the Discovery and Exploration of Australia*, published in 1865.

THE LEPIDOPTERA OF NORTHUMBER- LAND AND THE EASTERN BORDERS.

By GEORGE BOLAM.

Continued from Vol. XXVI, p. 227.

GEOMETRINA (*continued*).

95. *ASTHENA LUTEATA*. Small Yellow Wave.—Very local, and apparently not at all common in Northumberland. I first took it at Berwick in 1895, but never saw more than single examples there, either then or in subsequent years. During the last fifteen years I have seen it occasionally in Mr J. S. T. Walton's garden at Stocksfield, and at Houxty, but never in more than small numbers. Professor Heslop Harrison, however, has recorded it as being not uncommon about Stocksfield and Corbridge, as well as at Chopwell; * and Robson recalled the fact that so long ago as 1829 it was included as from Newcastle in Stephens' *Illustrations*, on the authority of Wailes: to which he added, "Mr Henderson also has taken it at Jesmond, where perhaps Wailes' specimens were obtained."

There are no records from the Scotch Border counties, but it occurs farther to the north and west; as well as not uncommonly in some localities in Durham, and in Cumberland.

96. *A. CANDIDATA*. Small White Wave.—We had no knowledge of this in the northern part of the district; and I can do no more than quote Robson, who says, "Finlay found it at Hartburn, but not commonly, and did not meet with it elsewhere in his neighbourhood. Yet, so long ago as 1829, Mr Wailes took it at Meldon Park, where Mr Finlay lived, and also at Tynemouth (see Steph., *Illust.*, vol. iii, p. 300)."

* *Vasculum*, vol. ix, p. 62.

97. *A. SYLVATA*. Waved Carpet.—Again I am constrained to quote Robson's *Catalogue* as giving all I know of this moth in any part of our district: "Recorded in the *Manual* [i.e. Stainton's] for Newcastle and Darlington, but I have no more recent records of it from either place. The only collector who has taken it lately was Mr Finlay, who met with it at Healey at the end of June, regularly but never common."

98. *A. BLOMERI*. Blomer's Rivulet.—Once more I have to fall back upon Robson as giving all we know of this insect in our district, and it is not too full: "Mr Henderson records it from Jesmond, but I do not know if he got more than one." It is, or used to be, plentiful in some of the denes on the Durham coast.

99. *EUPISTERIA HEPARATA*. Dingy Shell.—Occurs about Chopwell, and at Ebchester where the Derwent forms the boundary between Northumberland and Durham, as well as in one or two places just south of the Tyne, but probably nowhere more than sparingly. It has been reported farther north but not on very satisfactory evidence, and I have no personal knowledge of it.

100. *EMMELESIA AFFINITATA*. The Rivulet.—Occurs over a large part of the district, and is perhaps more common than the paucity of captures might indicate; but although I have taken it in many places—Berwick, Scremerston, Cheswick Links, Langleyford Hope (above Wooler), Hoselaw (Roxburghshire), Houxty, Stocksfield, and on South Tyne below Alston—in none of these has it been noticed at all numerously, and the same has been remarked of it by other collectors. Other Northumbrian localities are—Fenwick Wood, Twizell, Meldon Park, Sidwood, and West Allendale.

For Berwickshire: Ayton, Pease Dean, Gordon Moss, and Threeburnford.

For Roxburghshire: Hoselaw, Kelso, and Hawick.

101. *E. ALCHEMILLATA*. Small Rivulet.—A common, and usually abundant species, in most places throughout the district; just the reverse of the last.

102. *E. ALBULATA*. Grass-Rivulet.—Another generally common species over the district.

103. *E. DECOLORATA*. Sandy Rivulet.—As generally distributed over the district as the last, and about equally common on the Borders. In South Northumberland it seems to have been considered more local, and less numerous, but I have seen it in plenty about Houxty and on South Tyne, both above and below Alston; also at Stocksfield, Whitfield, and Haydon Bridge. Finlay found it at Meldon, “but never common,” and Newcastle is the only other definite locality given by Robson.

104. *E. ERICETATA*. Heath-Rivulet.—A local species, addicted to moor-edges, although the larvæ feeds freely on eyebright. In Northumberland we found it fairly numerous in the Langleyford valley, in August 1888, both above the Hope and about the Blackcock-Wood, two or three miles nearer Wooler. Since then I have taken it at Kyloe, as well as at Houxty, and Garret Hot on North Tyne; while about Alston it is not uncommon, extending down the river at least as far as Lintley. There seem to be no other records for that county, but probably it only needs looking for.

In Berwickshire, Shaw got it occasionally at Eyemouth; John Anderson at Drakemire; and Kelly on the Longcroft moors, Lauderdale; in the last two localities as long ago as 1874.

In Roxburghshire, Mr Grant Guthrie reported it as common about Muirfield, Hawick; and Shaw from the neighbourhood of Galashiels. In July 1901, I took it at Hoselaw.

105. *E. UNIFASCIATA*. Haworth's Carpet. This very local species has rarely been met with in the district, and never more than singly.

For Northumberland, I took one at Fenwick Wood, in July 1897, but never saw another. Maling recorded one from Jesmond Dene in 1874,* and Professor Heslop Harrison has seen one from Killingworth;† but these are our only records. It has occurred more commonly in County Durham, where Harrison has found the larvæ sparingly on the seeds of *Bartsia*.†

* *Nat. Hist. Trans. Northumberland, Durham, and Newcastle-upon-Tyne*, vol. v, p. 144.

† *Ibid.*, vol. xv, p. 263.

At Galashiels Shaw had seen it, but marked it as "very rare," in 1904. William Evans took one on a wall at Longniddry, on 26th July 1884, but that was his only record for the Forth area.

106. *E. BLANDIATA*. Pretty Pinion.—I took a single specimen at Bonnyrigg Hall, on the Northumberland Lakes, in June 1897; but though it occurs in several places in Cumberland, and was once taken by Robson in Durham, there is no other record known to me for any part of our district. It is chiefly a Highland insect.

107. *CIDARIA PSITTACATA*. Red-green Carpet.—Must be classed as rare in the district as it has nowhere occurred in any numbers; but, as the localities show, it is very generally distributed. It is usually taken at ivy-blossom in September, October, and November, and the impregnated females hibernate; but, in 1925, I took three specimens in July—one at Hesleyside and another at Greenlee Lough on the 24th, and the third at Houxty three days later. Other Northumbrian stations are Sidwood, Sweethope, Meldon, Twizell, Belshill, Norham, and Berwick. At the last-named place it has occurred to me on both sides of Tweed, once at Brow-of-the-Hill; while one was taken at rest on Berwick Bridge by Mr Wallace, at Christmas, 1887.

For Berwickshire, we have Eyemouth and Fans.

For Roxburghshire, Jedburgh, Hawick; and about Galashiels.

108. *C. MIATA*. Autumn Green Carpet.—Like the last, this species emerges in autumn and hibernates, being frequently found upon the wing as late as the end of May. It is well distributed all over the district, and often so numerous that a list of localities would be superfluous. Its range extends from the sea-banks to far out upon the hills, up to 2000 feet, perhaps even more, sometimes swarming in some of the higher stations on a fine night in November, where there is no ivy to attract.

109. *C. CORYLATA*. Broken-barred Carpet.—Widely distributed where woods with plenty of undergrowth occur, and common enough in many places; the pretty white-blotched

form *albo-crenata* being usually far from rare. A few localities are—

Northumberland: Twizell, Kylee, Newham Bog, Glanton, Alnwick, Morpeth, Jesmond, Sidwood, Houxty, and on South Tyne from Alston to Haltwhistle.

Berwickshire: Eyemouth, Ayton, Pease Dean, Lauder, Paxton.

Roxburghshire: Hawick and Jedburgh, but considered rather rare there by Elliot; Yetholm. About Galashiels Shaw marked it "scarce."

110. C. *RUSSATA*. Marbled Carpet.—Common throughout the district, and generally very numerous, especially the August brood. A very variable species, some of the varieties exceedingly beautiful: *centum-notata*, *comma-notata*, *truncata*, and *perfuscata* being all common. It sometimes comes rather freely to sugar, and is fond of sitting upon the heads of rushes with the *Noctuæ*.

111. C. *IMMANATA*. Dark Marbled Carpet.—As well distributed as the last, almost as abundant, and also very variable; running into dark and lighter forms, some of *marmorata* type being particularly fine.

112. C. *SUFFUMATA*. Water-Carpet. — Another common species throughout the district, running into several varieties, of which the pitchy form *piceata*, and modifications of it, is in some localities as common as the type.

113. C. *SILACEATA*. Small Phoenix.—Well distributed, but nowhere very abundant; about Berwick we used to see it every year, but only in ones and twos. Other localities are—

Northumberland: Scremerston, Haggerston Mead, Fenwick Wood (rather common), Newham Bog, Twizell, Alnwick, Glanton, Morpeth, Hexham, Stocksfield, Houxty.

Berwickshire: Lamberton, Eyemouth, Ayton, Preston (where J. Anderson got it fairly commonly), Coldstream, Lauder.

Roxburghshire: Hawick; about Galashiels far from rare.

114. C. *PRUNATA* (=C. *RIBESIIARIA*). The Phoenix.—Widely distributed and not uncommon. Localities are—

Northumberland : Twizell, Berwick, Allerdean, Haggerston, Waren, Houxty, Hexham, Allendale, Newbiggin-by-the-Sea, Morpeth, etc. At Alston it comes in at our windows pretty regularly in July and August, and I have seen half-a-dozen in a room together—a fine sight.

Berwickshire : Ayton, Eyemouth, Whitadder Banks, Gordon Moss.

Roxburghshire : Hawick, Jedburgh, Yetholm. Not rare round Galashiels.

115. *C. DOTATA*. The Spinach.—Not rare, and well distributed in Northumberland, where I have taken it at Kyloe, Beanley, Rothley Lakes, and Houxty, and have seen it from Sidwood. Robson's correspondent, Finlay, "met with it at Meldon Park, but it was always scarce," a remark which might apply to other localities since it has usually been taken only singly, though at Houxty we got one or two at the windows every year after 1918, sometimes as late as September. Shaw used to get it at Eyemouth, and we took it on several occasions at Berwick. Kelly listed it as "very rare" at Lauder, and probably it would have appeared in other lists from the north side of the Border but for confusion with allied species.

116. *C. FULVATA*. Barred Yellow.—Common in gardens, and where roses exist, all over the district. July and August are its usual times of appearance, but I have seen it, in numbers and in perfectly fresh condition, at Houxty, up to the end of September.

117. *C. PYRALIATA*. Barred Straw.—Another common moth in most places throughout the district, although not generally appearing in more than moderate numbers.

118. *C. POPULATA*. Northern Spinach.—Common, and usually abundant on most of the Northumbrian moors, even to the tops of Cheviot, Peel Fell, and other hills, and descending to sea-level at Scremerston, etc. Some very fine, dark varieties occur, almost melanistic. On the Berwickshire moors it does not seem to be so numerous, though present on most of them.

119. *C. TESTATA*. The Chevron. — Shaw considered this "scarce" at Galashiels; otherwise it is common throughout the district, perhaps most abundant on our moors, but often swarms at such places as Newham Bog, Scremerston, Ayton, etc. Some particularly handsome dark forms occur, mahogany coloured.

120. *PELURGA COMITATA*. Dark Spinach. — Widely distributed over the district, and for the most part common if not numerous; from the seashore to far up amongst the hills.

121. *SCOTOSIA DUBITATA*. The Tissue. — Rare, and only taken singly, but its distribution over the district is wide. Its appearance seems to be so strangely uncertain as to call for remark.

In Northumberland, one was taken by Wailes at Tynemouth, as recorded in Stephens' *Illustrations*; and another was reported to have been got at Newbiggin-by-the-Sea in 1872.* One in my collection was taken at Belshill, near Belford, in 1898.

On the other side of the Border, Shaw got one at Eyemouth in 1873; Renton one about Gordon some years later; and Kelly one at Lauder. In Roxburghshire, Mr Grant Guthrie took one above Lynnwood Mill, Hawick, before 1895; while Adam Elliot reported it from Samieston, Jedburgh, in 1882, as "sometimes in autumn but very uncertain in appearance."

[122. *S. CERTATA*. Scarce Tissue. — Buchanan White recorded it as from "Tweed area"; but I know nothing more of it. It needs confirmation.]

123. *CAMPTOGRAMMA BILINEATA*. Yellow Shell. — Everywhere abundant. About Berwick we used occasionally to get a very pretty variety with dark bands across the fore-wings, sometimes very dark.

124. *PHIBALAPTERYX LIGNATA*. Oblique Carpet. — Rare, or has been very seldom noticed anywhere in the district.

* *Nat. Hist. Trans. Northumberland, Durham, and Newcastle-upon-Tyne*, vol. v, p. 40.

In Northumberland, Maling found it "scarce" at Newbiggin-by-the-Sea in 1871; * and it has only once or twice occurred in Durham. In 1902, I took a single example on Cheswick Links, but never saw another.

In Roxburghshire, Mr Grant Guthrie found it, but "local," on Hilliesland Moss, Hawick, in June, some time prior to 1895.

In Cumberland it is local but not common about Carlisle, etc. William Evans found it abundant on Luffness marshes, East Lothian, in July 1895.

[P. LAPIDATA. Slender-striped Rufous.—No well-authenticated instance of the capture of this in our district; but T. J. Bold reported it from Newbiggin-by-the-Sea in 1872; † and it has occurred in Upper Teesdale, Yorks.‡ It is a Scotch insect and has been found no farther away than Lanarkshire to the west of us.]

125. THERA FIRMATA. Pine-Carpet.—Seldom very numerous, but common in fir woods in many places, and well distributed over the district. A few localities are—

Northumberland: Scremerston, Kyloe, Beanley, Houxty; Needless Hall Moor and Kenton (Robson).

Berwickshire: Eyemouth, Ayton, Fans, and Pease Dean.

Roxburghshire: Yetholm; Jedburgh, "in some years very abundant" (Elliot). About Galashiels, common (Shaw).

126. T. OBELISCATA, Hb. Shaded Broad-bar.—So closely allied to the next as to have caused grave doubts about their specific distinction. Barrett treated them as varieties, a view that coincides with that held by many of our old collectors, which makes it difficult, or nearly impossible, to say now, with any degree of certainty, to which species old records refer. There is, however, no doubt that in our district *obeliscata* is the commoner of the two. Its larvæ feed upon *Pinus sylvestris* and are often numerous in our woods: they are said also to have been found upon the common spruce, and some other cultivated

* *Nat. Hist. Trans. Northumberland, Durham, and Newcastle-upon-Tyne*, vol. iv, p. 283.

† *Ibid.*, vol. v, p. 40.

‡ T. A. Lofthouse, in *Naturalist* for January 1921, p. 83.

conifers. Pretty universally distributed amongst pine-woods, but a few localities may be useful.

For Northumberland: Twizell, Scremerston, Kyloe, Ellingham, Trickley, Beanley, Bolam, Houxty, Sidwood, Hexham, Langley, and West Allendale.

For Berwickshire: Eyemouth, Ayton, Coldingham, Fans, Duns, and Lauder.

For Roxburghshire: Hawick (where Mr Grant Guthrie specially noted that the form (as he then knew it) *variata* did not occur), Jedburgh, Kelso, and Yetholm. Common round Galashiels.

127. *T. VARIATA*, Schiff. Grey Pine-Carpet.—See remarks under the last species. The older view was that *variata*, if distinct, did not occur in this country at all, and that the greyer insects, which from time to time came under discussion—and suspicion—were to be treated as no more than varieties of *obeliscata*. The upholders of that view were not slow to stress the point that the larvæ of *variata* were claimed to be strictly spruce-feeders, and that *Abies excelsa*, or any of its near allies, are not indigenous to Britain. It has now, I believe, been found that *T. variata* is not entirely confined, in the larval stage, to spruce firs, although that has little direct bearing on the matter at issue, there being many insects, common in this country, whose food-plants are not natives—larch-feeders for example. How came they? Or if they were here before the larch was introduced (at least 300 years ago) what was then their food?

A more profitable biological inquiry might centre round the influence which a special diet may have upon the development of a variety, with perhaps its ultimate evolution into a "species," and how long a period that process may require? The relationship of a species to a variety, or a sub-species, is a cognate subject of perennial interest that need not be enlarged upon here.

I have no personal experience of the larvæ of *T. variata*, but in mixed woods, such as those at Kyloe and Houxty, have observed that the moth is quite as prone to rest upon the trunk of a pine as upon that of a spruce. Against the suggestion that the insect may have been accidentally introduced to this country, within

comparatively recent times, and disseminated through the agencies of nurseries, it may be pertinent to observe that the woods at Kylvie are of very ancient standing, and were "dark enough with firs," in the time of James II, to afford Grizzy Ochiltree safe concealment when she played the highwayman to save her father's life. There were spruce standing there in 1883 of approximately a hundred years old. The first plantings of spruce at Swinhoe took place about 1840; while in the fine old wood at Houghty (felled in 1917 to fill the insatiable maw of war) the ring-growths showed the spruce to be just over eighty years old—many of them exceeding as many feet in height. On the other hand, I recollect, some forty years ago, a bed of spruce, fit for distribution, in Matheson's nursery at Morpeth, being infested with a lepidopterous caterpillar, though its species was not determined.

Thera variata, as now differentiated, is certainly not rare in some parts of the district, while the wide distribution of the localities in which it has been noticed suggests that it would be found elsewhere if carefully looked for. I have no hesitation in ascribing to it moths which we took at Kylvie as early as 10th July 1883, and found to be not uncommon there in after years, 1887 and 1896 amongst them. On 26th October 1888, I took one on the wing in the Swinhoe Broomford woods, near Chathill Railway Station; and since 1913 have repeatedly seen it at Houghty. Professor Heslop Harrison tells me that he has found it on the Northumberland side of the Derwent, near Ebchester, as well as at Ravensworth in Co. Durham.

In 1883, my late friend W. B. Boyd gave me a specimen which he had taken many years previously at Cherrytrees, Roxburghshire, and I have seen others in several local collections, from Berwickshire as well as from the sister county.

128. *T. SIMULATA*. Chestnut-coloured Carpet.—Another well-distributed species where juniper grows; but, on 16th September 1882, I took one on the wing at Windmill Hill, a few miles south of Berwick, far from any wild juniper. The date is also a very late one, from about midsummer till the end of July being the usual time for the moth's emergence. Other Northumbrian localities are—Kylvie, Harehope, Chillingham (fairly numerous), Beanley, and Twizell.

For Berwickshire : Eyemouth, Ayton, Burnmouth, and Gordon.

For Roxburghshire : Hawick—one in Well's Woods, near Ruberslaw (Guthrie).

129. *T. JUNIPERATA*. Juniper-Carpet.—Seems to be little known in Northumberland, where I have only seen it amongst the old juniper bushes on Harehope Moor ; there, however, it is not scarce. No other records known to me.

In Berwickshire : Renton got it at Threeburnford, Kelly at Longcroft, Lauderdale.

In Roxburghshire : Mr Grant Guthrie took one in the neighbourhood of Hawick, and Elliot found it not uncommon in the Jedburgh valley. About Galashiels Shaw looked upon it as common.

130. *HYPSSIPETES RUBERATA*. Ruddy Highflyer. — Was hardly known in the district till I discovered, in 1882, that it was to be obtained easily, and in numbers, in the pupal stage, beneath the bark of sallow-bushes at Allerdean, Scremerston, Kyle, and Newham Bog. But since that date it has been found commonly in most other parts of Northumberland when looked for : Pallinsburn, Beanley, Harehope, Langleyford, Spindleston, Sweethope, Greenlee Lough, Houxy, Sidwood, and Whitfield, West Allendale.

In Berwickshire, Renton got a single moth at Threeburnford in 1877, and twenty years later Mr Grant Guthrie reported it from Lynnhope and Wisphill, near Hawick, Roxburghshire. I have found it at Yetholm in the latter county.

It emerges towards the end of May, and is on wing throughout the following month, some of our varieties being beautifully red, others just as dull-coloured.

131. *H. IMPLUVIATA*. May-Highflyer.—Well distributed and usually common enough amongst Aller groves, and where *Alnus glutinosa* fringes the banks of streams. Some varieties very dull, approaching certain forms of *H. elutata* others quite ruddy in hue, suggesting a connection with *ruberata*. Amongst localities are—

Northumberland : Allerdean, Haggerston, Newham, Twizell,
VOL. XXVI, PART III.

Carham, Glanton, Alnwick, Morpeth, Sidwood, Houxty, Langley, and Devil's Water.

Berwickshire : Ayton, Cockburnspath, Coldingham. Threeburnford, Duns, Lauder.

Roxburghshire : Hawick, Kelso, Yetholm, Melrose.

132. *H. ELUTATA*. July-Highflyer.—Almost universally abundant, and very variable, some of our forms not only beautiful but very interesting; some are almost black, others, especially from upland glens, with a decided red tinge.

133. *OPORABIA DILUTATA*. November-Moth.—Common throughout the district and generally abundant; variable as to size as well as colour. Emerges towards end of September, swarms in the woods during October, and often persists into November.

134. *O. FILIGRAMMARIA*. Autumnal Moth.—Along with the last, and generally common where heather grows, from August to about the middle of October. Many of our old collectors used to regard it as only a moorland form of the last, an easily understood opinion.

135. *O. AUTUMNARIA*.—Was treated by Barrett as a variety of the last, which coincides with the views of a good many of our old collectors. It is more or less common throughout the district in deans and natural woods, where birch and alder prevail, on each of which the larvæ may be found, but commonly on the former.

136. *CHEIMATOBIA BOREATA*. Northern Winter-Moth.—Generally common throughout the district, more especially, perhaps, on the English side; often abundant enough in upland places to be a nuisance to the collector.

137. *C. BRUMATA*. Winter-Moth.—Everywhere common, to the extent of being a pest in the caterpillar stage. The moths are early astir on winter evenings, snatching an hour or two before the frost grows too severe, and the gardener shudders as he contemplates the damage the resulting caterpillars will

do next spring. But Dame Nature often walks red-handed through the winter, and in mercy to man, and some of her other children, tips the scales heavily against the *Cheimatobiæ* in order that the belief may still hold good that she dispenses even-handed justice. When her back is turned, or she takes her pleasure elsewhere, disaster follows to roses, apple-trees, gooseberries, and many other things—for a season.

138. *LOBOPHORA LOBULATA*. Early Tooth-striped.—Not rare, but very locally distributed. Localities are—

Northumberland: Twizell, Chillingham, Haggerston Mead, Sidwood, Houxty; Meldon Park and Coal Law Wood, Morpeth (Robson).

Berwickshire: Ayton, where Buglass took one in 1880 but never saw another.

Roxburghshire: Humbleknowes, Hawick (Guthrie).

It ought to occur elsewhere, but may have been overlooked, being one of those species which are early on the wing, before many collectors are abroad.

[139. *L. SEXALATA*. Small Seraphim.—Barrett says “more locally or rarely in Westmorland, Cumberland, Northumberland, and Durham, but I find no record in Scotland.” I do not know the source of his information, but I have no records from actually within our boundaries. It is, however, a species which may very easily have been overlooked on our sallow-sprinkled mosses, as Mr George B. Routledge of Tarn Lodge, Headsnook, tells me that he takes it on his Hayton Moss, which is within a dozen miles of the south-western march of Northumberland.

Mr Routledge also informs me that he occasionally takes the allied *L. hexapterata* about his grounds, which is a hint that should be useful to rising Northumbrian entomologists.]

140. *L. VIRETATA*. Yellow-barred Brindle.—Must be rare, or has very seldom been met with. We got one at Berwick in 1898, and other single moths at Kyloe and Haggerston the following summer, but I have not heard of it elsewhere. Finlay took one in Meldon Park (Robson), and it has occurred at Gibside and other places on the Durham side of Tyne, as well as in Cumberland. It was included by Buchanan White as from

Tweed, Solway, and Clyde areas, but with the qualification "I have not seen it."

141. *CHESIAS SPARTIATA*. The Streak.—Widely distributed, and generally common over the district where broom flourishes.

Northumberland: Twizell, Cheswick, about Berwick (but not common), Beanley, and Houxty; Kenton, Jesmond, and Hexham (Robson); and doubtless elsewhere.

Berwickshire: Ayton (very plentiful), Lamberton, Whitadder Banks, Threeburnford, Lauder.

Roxburghshire: Jedburgh, Hawick, Yetholm, etc.

About Galashiels it is common, and William Evans recorded it from Barnsness Lighthouse, East Lothian, on 23rd September 1908. It has more than once come into our lighted rooms.

142. *ANAITIS PLAGIATA*. Treble-bar.—Distributed all over the district; in most places common enough, though nowhere very numerous, and so striking a moth never escapes attention. I have even found it at rest on the lighthouse on Berwick Pier! Occurs in June and July, but is most frequent in August and September, the second brood.

143. *CARSIA IMBUTATA*. Manchester-Treble-bar.—Very local. It seems once to have been much better known in Northumberland than is the case now, whether from lack of observers or because it may have decreased it is not easy to say. Old records point to Prestwick Car and Muckle Moss as localities; my only personal knowledge of it in the county is that Mr Abel Chapman casually boxed a specimen off an old railing at Heatherington Moss in July 1919.

In Roxburghshire, I found it in moderate numbers at Hoselaw Loch in 1903. Mr Grant Guthrie, in 1895, reported it as "abundant near Newcastleton, August";* and Andrew Kelly wrote, in 1880, "Mr Guthrie and Mr Turnbull, years since, saw this singularly rare insect in some profusion hanging at rest amongst the cranberry bogs of Canonbie, during a sunless day in July. A number more were got by disturbing the tufts of long grass. Their attention had been drawn to this locality by some competent observers who knew of their existence

* *Hist. B.N.C.*, vol. xv, p. 342.

there." * Canonbie is just over the march into Dumfriesshire, not far from Newcastleton, and these two records may refer to the same station. All the specimens in local collections, of which the number used to be considerable, were due to the generosity of Mr Kelly or Mr Guthrie.

Oxycoccus palustris, on which the caterpillar feeds, is as plentifully as ever upon our sphagnum mosses, and there seems no reason why the moth should not be so too.

I know of no records for Berwickshire, and suspect that Barrett's inclusion of that county amongst his localities may be a slip owing to Kelly's list being addressed from Lauder. Professor Heslop Harrison tells me that it occurs at Stanhope in Co. Durham.

144. *EUBOLIA PALUMBARIA*. The Belle.—Distributed all over the district and common in most places, though accounted scarce in some. At Stocksfield, where it is abundant, Mr J. S. T. Walton took one in June 1919, very little more than an inch in expanse of wing.

145. *E. BIPUNCTARIA*. Chalk-Carpet.—Although common on the Durham coast, I know of only one undoubted locality for our district. It was included in Selby's *Fauna of Twizell*, and in 1898 I took a single example on Belshill which adjoins Twizell.

146. *E. CERVINATA*. The Mallow.—Locally abundant on the coast, but recorded from few inland stations. Localities are—

Northumberland: Twizell, Bamburgh, Holy Island, Haggerston Mead, Berwick (sometimes very numerous on the north banks of Tweed), Wooler; Newbiggin-by-the-Sea, and near Newcastle (Robson).

Berwickshire: plentiful along the coast, in places, Berwick to Eyemouth, Coldingham, Ayton, Whitadder Banks as far up as Broomhouse. Renton recorded it from Gordon in 1880.

The larvæ are full fed about the middle of August, and in addition to mallow may be found on hollyhocks. The moths are most numerous in September, but a few sometimes appear in August, and many do not emerge till the middle of October.

* *Hist. B.N.C.*, vol. ix, p. 384.

147. *E. MENSURARIA*. Small Mallow.—Universally abundant, and very variable in shade, some of those on the Berwick coast having the broad median band nearly black ; while in others the general hue approaches dull yellow.

148. *EUPITHECIA TOGATA*. Cloaked Pug.—Recorded by Adam Elliot from a large fir-wood on Crailing Hall farm, Roxburghshire, in June 1884,* where he afterwards found it not at all scarce, the larvæ feeding upon spruce cones. This remains our only record although we have plenty of woods apparently as favourable. It has occurred in Cumberland, though rarely and I believe in only one locality.

149. *E. VENOSATA*. Netted Pug.—I know of no occurrence of this in the district except that mentioned by Robson—" Mr D. Rosie took a single specimen at Stocksfield " (Northumberland). The larvæ feed in the seed-capsules of *Silene inflata* and *Lychnis dioica*.

150. *E. PULCHELLATA*. Foxglove-Pug.—Widely distributed over the district, and probably not rare, although records have been few.

For Northumberland : James Hardy found it at Wooler in the 'seventies ; I got one in Fenwick Wood in 1897 ; Professor Heslop Harrison found it fairly common in West Allendale in 1916, and at Riding Mill and elsewhere on the Tyne a few years later. It appears to be not uncommon round Alston.

In Berwickshire : Hardy identified it long ago in Pease Dean, and doubtless it would be found elsewhere if carefully looked for. I have taken it at Hutton Hall.

About Galashiels : Shaw considered it scarce.

151. *E. LINARIATA*. Toadflax-Pug.—Appears to be rather a rare species generally, and I do not know that we can claim it for our actual district, but it occurs near Peebles, which the Club has many times brought within its "vicinage," and that certainly entitles it to a place here.

152. *E. CENTAUREATA*. The Lime-Speck.—Well distributed

* *Hist. B.N.C.*, vol. x, p. 533.

and not uncommon. In Northumberland, has been taken in most places where entomologists have occurred ; Berwick (not rare on either side the Tweed), Cheswick Links, Waren ; Bambergh, Warkworth, Beadnell, etc.

In Berwickshire : not infrequent along the coast, Burnmouth, Ayton, and to Cockburnspath.

The caterpillar feeds on Ragwort and a number of other common weeds.

153. E. SUCCENTURIATA. Bordered Lime-Speck.—Is taken, locally, on the Northumbrian coast, near Newcastle (as well as in Durham), and ought to be found nearer our centre of activities ; but there are no records, nor ever were many collectors of pugs to make them ! Has, perhaps, sometimes been confused with the next.

154. E. SUBFULVATA. Tawny Speck.—Well distributed, and generally found to be not rare where looked for.

At Berwick it was one of our commonest pugs, other Northumbrian stations being Meldon Park, Houxty, and Sidwood.

In Berwickshire, Shaw got one or two at Eyemouth, at light, in most years, including a fine variety, *oxydata*.

In Roxburghshire, Mr Grant Guthrie took it at Hardie's Hills, Hawick ; and Elliot found it " general but scarce " in the Jedburgh neighbourhood.

155. E. SUBUMBRATA. Shaded Pug.—Well distributed in Northumberland : Chillingham in 1899, Berwick ; Longwitton, Morpeth ; and Kenton, near Newcastle (Robson) ; but no records from across the Border, although found not uncommonly in several parts of Scotland.

[156. E. PUSILLATA. Dwarf Pug.—There seem to be no records of this from Scotland, but it is listed for Cumberland. I have no personal knowledge of it, but in the *Entomologist* for August 1872, Mr C. Eales recorded a pair from near Newcastle in May 1871. For the present it must be bracketed.]

157. E. NANATA. Narrow-winged Pug.—A common moth on all our moors, all over the district, and used to occur also in our garden in Berwick.

158. *E. INDIGATA*. Ochreous Pug.—Local, but not rare, and well distributed. In Northumberland, Kyloe (since 1888, frequent), Needless Hall Moor (sometimes in plenty); and Dipton Woods (Harrison).

Berwickshire: Foulden, Ayton, Highlaws near Eyemouth; and considered not rare in the Jedburgh district, Roxburghshire, by Adam Elliot.

159. *E. CONSTRICTATA*. Wild-Thyme-Pug.—Since the larva feeds on the flowers of wild thyme, it cannot be from lack of food if this little pug is as rare as the want of records suggests; but I can say no more about it than that Finlay took one at Healey, Netherwitton, as mentioned by Robson, which entitles it to a place in the Northumberland list.

160. *E. LARICIATA*. Larch-Pug.—Probably fairly common throughout the district where larch grows (see observations to No. 127). In Northumberland I took one in the flower-garden at Twizell House on 17th June 1887, and another, a few days later, on Doddington Moor; and have since found it at Waren, Trickley Wood, Harbottle, Houxty, and Whitfield in West Allendale. Finlay got it, but not commonly, in Coal Law Wood in the Morpeth neighbourhood.

In Berwickshire it has occurred at Ayton (since 1877—Shaw), and Preston near Duns; and commonly about Hawick, Roxburghshire.

161. *E. CASTIGATA*. Grey Pug.—One of the commonest of the pugs throughout the district, taken practically everywhere.

162. *E. ALBIPUNCTATA*. White-spotted Pug.—This is another species which ought to be common since its food abounds. William Evans got it in Midlothian, and Robson refers to it about Hartlepool, but the only record for any part of our district, known to me, is Selby's from Twizell, very nearly a hundred years ago!

163. *E. PIMPINELLATA*. Pimpinel Pug.—Our only record is by Buglass, a good man, who got it in Ayton Woods, Berwickshire, in 1880.

164. *E. HELVETICARIA*. Edinburgh-Pug.—So named by Newman in honour of the fact that it was got by Logan in the Edinburgh district of Fifeshire, its first known station in the British Isles.

For Northumberland, I took two examples on Harehope Hill, in June 1893, and had their identity confirmed by Mr South.

William Evans found it in abundance on the Pentlands in 1895; and later recorded it from Halls, near Dunbar, and Yester; larvæ in both cases on juniper, in October (*Scottish Naturalist*, May–June 1919, p. 96).

165. *E. SATYRATA*. Satyr-Pug.—Generally pretty common on our moors, and descends also to the sea-coast. Some records are—

Northumberland: Kyloe, Spittal banks, and along the sea-cliffs north of Berwick, in each case in some profusion; Emmet-haugh, North Tyne; Meldon Park, etc.

In Berwickshire it is local but numerous where it occurs on the sea-banks at Eyemouth and Coldingham; and the like may be said of it in Roxburghshire about Hawick, Jedburgh, and other places, although round Galashiels it is looked upon as scarce.

166. *E. PLUMBEOLATA*. Lead-coloured Pug.—Local, and not noticed except in small numbers.

For Northumberland, it occurs in Trickley Wood, Fowberry, Houxy; and Kenton, near Newcastle (Robson).

In Roxburghshire: at Kelso; and Hawick (Wisp Hill, not common, Guthrie). No definite Berwickshire records, but it is sure to occur therein.

167. *E. PYGMÆATA*. Marsh-Pug.—Probably not rare, but has not been much noticed.

The only locality in which it has occurred to me is the Langleyford Vale, Northumberland, where several, all a little worn, were taken in July 1903. In Roxburghshire, Elliot found it on the higher ground above Jedburgh, and gave me specimens in 1888. His letter is worth quoting: “quite a common species in certain localities about here, and I have been asked so much for it that I have only two very middling specimens to send you.

I can, however, easily get you perfect ones when the time comes—middle of June.”

168. *E. VALERIANATA*. Valerian-Pug.—Not rare along west side of Kyloe Hills, to Holburn, Northumberland, but I know of no other locality for the district.

169. *E. FRAXINATA*. Ash-tree-Pug.—For Northumberland, Mr Bruce took this at Adderstone Hall, which adjoins Twizell, and it seems likely that the *E. innotata* included in Selby's list may have been this species. Robson quotes Finlay as taking it regularly, though sparingly, at Meldon Park, and Maling near Hexham. We have no other records for the immediate district, but William Evans got it at Tynefield, East Lothian; and it is taken in both Cumberland and Durham.

170. *E. INNOTATA*. Wormwood-Pug.—There is Selby's record, referred to above, which may have been this, and we had not much doubt in assigning to it some moths taken at Kyloe in 1893, but their identity was never confirmed, and they have now disappeared. It ought, perhaps, to be bracketed.

171. *E. VULGATA*. Common Pug.—Common throughout the district; in considerable variety.

172. *E. ABSYNTHIATA*. Wormwood-Pug.—Generally looked upon as rather rare in the district, but has a wide distribution. We used to get it occasionally at Berwick; Wailes recorded it from Meldon Park nearly a century ago, and Wasserman as “sparingly at the mouth of Tyne and on the coast”; Robson gave a few Durham localities, but there are no others for Northumberland.

Buglass got it on the sea-banks at Burnmouth in 1880, and for a few years afterwards, but only in small numbers, and there are no other Berwickshire records known to me. Its food-plant is very local.

Elliot found it “moderately common” in the Jedburgh district, the only record for Roxburghshire.

173. *E. MINUTATA*. Ling-Pug.—Not common, apparently,

but widely distributed. In Northumberland I only got it once, on Kylvie Hills, in 1895; Finlay found it on Throphill Moor "generally, but not always common," Miss Rosie and her brother at Kinton and Dinnington, and Maling freely at Hexham (Robson).

In Berwickshire, Buglass took it fairly commonly on Coldingham Moor, and Shaw occasionally at Eyemouth. It likewise occurs in the Forth area.

174. *E. ASSIMILATA*. Currant-Pug.—Common and widely distributed. We got it at Berwick, Haggerston, Scremerston, Learmouth Bog (profusely), Houxty, Sidwood, and West Allendale; Robson gives Meldon Park (but scarce) and about Newcastle.

In Berwickshire, Kelly recorded it from Lauder in 1876 and 1877, Buglass from Ayton, and Shaw from Eyemouth.

About Galashiels it is looked upon as scarce. Evans had it from the lighthouse on Isle of May in 1911.

175. *E. TENUIATA*. Slender Pug.—Widely distributed, but local, and never more than sparingly. For Northumberland, I took it several times at Twizell House, in 1900 and later; and at Houxty. Finlay found it "not scarce" in Coal Law Wood, Maling about Newcastle, and Professor Heslop Harrison has recorded a female from West Allendale.

In Berwickshire: Ayton Woods (Buglass, 1876), Eyemouth, and Lamberton (Shaw, who considered it not very uncommon).

For Roxburghshire, Elliot's record for the Jedburgh district seems to be the only published one, but he got it not infrequently.

176. *E. ABBREVIATA*. Brindled Pug.—Does not appear to be common anywhere in the district, but is widely distributed. For Northumberland, it is one of the few pugs which appear in the Twizell list. I got it in 1887 at Kylvie, and once or twice, subsequently, on the moors there. Finlay took it sparingly in Coal Law Wood, and Robson refers to other records for Newcastle and Durham.

In Berwickshire, Shaw got it occasionally but always looked upon it as rare; Buglass found it the same at Ayton, and Anderson at Preston.

It appears to be not so rare in Cumberland; and William Evans found it common on oak at Aberfoyle. Perhaps some of our collectors may not have distinguished it from *nanata*, to which it bears some resemblance.

177. *E. EXIGUATA*. Mottled Pug.—Generally common over the district, and taken by all our collectors.

178. *E. SOBRINATA*. Juniper-Pug.—Would probably be found, if looked for, where juniper occurs. In Northumberland, I took it at Kyloe in 1888, and, although Mr South had some doubt about the specimen submitted to him, it was found later to be not uncommon amongst the old junipers on Harehope Hill.

In Berwickshire, it was got by Anderson at Preston, near Duns.

About Galashiels it is reported to be abundant: Evans found it so on the Pentland Hills; and it has occurred in Durham and Cumberland.

179. *E. RECTANGULATA*. Green Pug.—Was rather common about Berwick, Haggerston, etc., and is probably so over most of the district as all our collectors got it, sometimes in profusion. The dark form seems to be distinctly rare with us, but we had one from Ancroft; and Mr Walton an almost black one at Stocksfield in 1918, with indistinct, whitish, double "rivulet" on upper wings.

180. *E. PUMILATA*. Double-striped Pug.—We took this at Kyloe in 1896, and found it rather common there later, about the foot of the whinstone crags; but I know of no other localities for the district. In the Edinburgh area it is widely distributed, and, in places, abundant.

181. *TANAGRA CHÆROPHYLLATA*. The Sweep.—Everywhere common, and not the less welcome because of the abundance in which it is disturbed from grass and fern, to go flitting before us in the sunshine like a little butterfly.

[OBS. Not many of our old collectors were much interested in such small things as Pugs, and still fewer of them made

any serious attempt at collecting "Micros." The pages which follow are necessarily, therefore, little more than a mere personal record ; when it is otherwise, the fact will, as heretofore, be duly acknowledged.

English names, in these groups, are generally of little use, and may be dispensed with. In substitution, the page on which the species may be found in Leech's excellent little book on *British Pyralides*, published in 1886, are added in the present instalment. When the *Tortrices* and *Tineina* are reached, it is hoped to do the same with Wilkinson's and Stainton's works.]

PYRALIDINA.

1. *PYRAUSTA PURPURALIS*. Leech, p. 23.—The brilliant colouring of this little moth has earned it the not inappropriate name of "Crimson and Gold." It is local, but widely distributed over the district, and often abundant where it occurs. Along with some of its kindred it flies in the sun, a gem in the wild and often rocky spots it most frequents. Its usual time of appearance is about the end of June and through July ; but on 27th April 1921 it was flying in numbers in Gilderdale Forest,* an unusually early date. Other Northumbrian localities are—Kyløe, Glanton, Beanley, Chathill, and Houxty. In Berwickshire, Eyemouth (sparingly) and Pease Dean ; and in Roxburghshire, Hawick, Yetholm, and round Galashiels.

2. *P. OSTRINALIS*. Leech, p. 24.—Perhaps as common as the last, with which it often flies ; in most of the localities just mentioned, and a few others, such as Cheswick Links, five miles south of Berwick, and Lamberton to the north of it.

3. *P. PUNICEALIS* (= *AURATA*). Leech, p. 22.—Not uncommon, flying with the last, at Kyløe (where it was first taken in June 1887), and has doubtless been overlooked elsewhere.

4. *P. CESPITALIS*. Leech, p. 25.—Also fairly common at Kyløe, and no doubt elsewhere in Northumberland, but easily confused with its kindred. About Alston it is common in several

* For the benefit of the uninitiated, it may be added that here, as in other places, the "forest" is an extensive, open moor, practically treeless.

places. In Roxburghshire the same remarks probably hold good, though Adam Elliot, from Jedburgh district, is the only one who has recorded it. Common about Galashiels.

5. *P. CINGULALIS*. Leech, p. 25.—We took it at Berwick, Kylee, and Chillingham, in Northumberland. For Berwickshire it is recorded from Eyemouth; and for Roxburghshire from Hawick. Arthur's Seat, Edinburgh, is an old locality.

6. *P. OCTOMACULALIS*. Leech, p. 26.—We took this at Kylee in 1897, and had a single specimen from Stichill, Roxburghshire, a year earlier. Robson records single examples taken in Northumberland in June 1898—one at Dipton Wood by Mr D. Rosie on the 22nd, another by Mr G. Nicholson, near Hexham, the following day.

7. *BOTYS PANDALIS*. Leech, p. 33.—A single specimen, taken near Berwick in June 1898, constitutes all I know of this species in Northumberland or on the Borders; but one would suppose it ought not to be rare.

8. *B. HYALINALIS*. Leech, p. 34.—My only locality is Belford, Northumberland, where it was not uncommon in July 1898.

9. *B. FUSCALIS*. Leech, p. 35.—Not rare, and sometimes abundant where its food-plant, *Melampyrum*, grows. In Northumberland, common about Langleyford in August 1887, and in several other places in later years—Twizell, Beanley, Houxty; Meldon and Newcastle (Robson). In Berwickshire: Pease Dean and Whitadder Banks. Roxburghshire: Hawick, and Jedburgh (sparingly—Elliot).

10. *B. TERREALIS*. Leech, p. 36.—One at Kylee, Northumberland, in August 1889.

11. *B. CROCEALIS*. Leech, p. 37.—Holy Island, near the Coves, 1896, the only Northumbrian station known to me, though Robson has noted it as common on the Durham coast. In Berwickshire, in Tibby Fowler's Glen on the Whitadder, and Horndean on Tweed, since 1887.

12. *B. FERRUGALIS*. Leech, p. 31.—Kylœ in September 1898, the only station in which it has been noticed in Northumberland. Adam Elliot recorded it for Roxburghshire; and William Evans from Luffness, East Lothian, in 1892.

13. *B. FORFICALIS*. Leech, p. 42.—Universally common.

14. *B. LUTEALIS*. Leech, p. 29.—Another abundant species everywhere.

15. *B. OLIVALIS*. Leech, p. 30.—Nearly as well distributed as the last, and as abundant where it occurs.

16. *B. PRUNALIS*. Leech, p. 30.—Berwick and Kylœ; and Meldon (Robson), for Northumberland. Recorded by Elliot for Roxburghshire, and would doubtless be found elsewhere if looked for.

17. *SPILODES STICTICALIS*. Leech, p. 40.—Not uncommon at Boulmer, Northumberland, in August, and was recorded by Maling from Newbiggin-by-the-Sea so long ago as 1872.

18. *S. PALEALIS*. Leech, p. 40.—Was likewise recorded by Maling from Newbiggin-by-the-Sea, "one within a few yards of high-water mark," in July and August 1872.

19. *S. VERTICALIS* (=RURALIS). Leech, p. 35.—Generally common. Berwick, Langleyford, Houxty, etc.; Eyemouth; Kelso, etc.

20. *S. URTICALIS* (=URTICATA). Leech, p. 28.—This "Small Magpie" is frequent over the district where nettle-beds abound—and where do they not? Berwick to Edinburgh, Lauder, Jedburgh, Houxty, Newcastle, etc.

21. *LEMIODES PULVERALIS*. Leech, p. 41.—Rare, or little noticed. We took one in Berwick, 1st July 1887, and another at Allerdean Mill in 1893.

22. *NOMOPHILA HYBRIDELLA* (= *NOCTUELLA*). Leech, p. 21.—Not rare, and pretty generally distributed. In Northumberland: Scremerston (commonly at Valerian flowers), Cheswick Links, Houxty; Meldon Park, etc. In Berwickshire: at Eyemouth, Foulden, Lauder; and obtained by William Evans from light-houses at St Abb's Head, Barnsness, etc. Noted by Elliot from Roxburghshire.

23. *CLEDEOBIA ANGUSTALIS*. Leech, p. 9.—I got one at Berwick in July 1889, and Mr Wallace gave me another, one of several which he had taken at the same place in August 1893.

24. *PYRALIS FARINALIS*. Leech, p. 12.—Common enough throughout the district where corn-mills and grain-stores exist; the larvæ often a nuisance in such places, invading even private meal-chests if neglected.

25. *P. COSTALIS*. Leech, p. 11.—Has probably established itself here. We bred it more than once from "meal-worms" obtained in Berwick for our birds in the 'eighties, and I got a moth from Chillingham in 1894. It was included in Selby's Twizell list in 1839, and Maling recorded one from Newcastle in the *Entomologist*, vol. ix, p. 19.

26. *AGLOSSA PINGUINALIS*. Leech, p. 9.—"The Tabby" is widely distributed and fairly common in the district, about stables and outbuildings. Berwick, Haggerston, Newcastle, etc.; Eyemouth, Hawick, Kelso, etc.

27. *HYDROCAMPA NYMPHÆALIS*. Leech, p. 48.—Distributed all over the district, and, locally, abundant about old ponds and water-holes, as well as in some of our moorland loughs.

28. *H. STAGNALIS*. Leech, p. 49.—Scarcely so numerous as the last, but occurs with it, and about equally well distributed throughout the district.

29. *ACENTROPUS NIVEUS*. Leech, p. 49.—Whitedam Head pond, near Berwick, in 1898, and Belshill, Northumberland, the following July.

30. *SCOPARIA CEMBRÆ*. Leech, p. 13.—Seems to have a considerable distribution, although, like many of its kindred, seldom recorded for the district.

It was not rare in Kylloe Wood in 1898. Shaw got it at Eyemouth in 1877, and it is on record for Hawick. . Evans has recorded it from Dalkeith and elsewhere in the Edinburgh district.

The var. *zelleri* is more common than the type on Cheswick Links, and on the sea-banks north of Berwick, and has occurred at Kylloe and Eyemouth.

31. *S. BASISTRIGALIS*. Leech, p. 14.—We got this at Berwick in 1898. Finlay found it “generally distributed about Morpeth but always scarce” (Robson).

32. *S. AMBIGUALIS*. Leech, p. 14.—Common and generally distributed all over the district.

33. *S. ATOMALIS*. Leech, p. 15.—We took this at Berwick and Belshill, in 1897, and I think elsewhere in North Northumberland, but it is very much like a small edition of the last and needs very careful separation; usually it is somewhat darker, and Leech says has a straighter costa and more triangular fore-wings.

Elliot recorded it from Roxburghshire, and Evans from the Forth area.

34. *S. ULMELLA*. Leech, p. 15.—*S. conspicualis* Hodgk. is now regarded as a variety of this. I took the latter form at Langleyford, Northumberland, in August 1888, our only record.

35. *S. DUBITALIS*. Leech, p. 16.—Generally common over the district. We took it at Kylloe in 1887, and later reared it from larvæ, on lichens on sallow, from the same station. Also at Cheswick, Allerdean (the var. *ingratella*), and along the sea-banks at Berwick. In Roxburghshire it was found to be abundant by both Mr Grant Guthrie and Adam Elliot; and in Berwickshire by Shaw at Eyemouth.

36. *S. MURANA*. Leech, p. 17.—Common in many places

—Cheswick, Langleyford, etc., in Northumberland; Jedburgh, etc., in Roxburghshire. I find no published records for Berwickshire, but it is certain to occur there also.

37. *S. TRUNCICOLELLA*. Leech, p. 16.—Wooler in 1898, Berwick the following year, Eyemouth in 1877. Appears not to be common in our district.

38. *S. CRATÆGELLA*. Leech, p. 18.—Common through the district where its food-plant, hawthorn, grows.

39. *S. MERCURELLA*. Leech, p. 18.—Is probably not uncommon. Records are—For Northumberland, Allerdean Mill, where we first took it in 1887, but later reared it from larvæ, and where it seems to be numerous; Chirnside Mains Wood, Berwickshire, where we also found it not rare in 1887, on birch; Ayton in 1877. William Evans recorded it from Forth area.

40. *S. LINEOLA*. Leech, p. 19.—Another species which is probably not rare with us. I took it with the last at both Allerdean and Chirnside in 1887 and 1893, and sent specimens to Mr South for confirmation. We likewise reared it from larvæ on birch. It is also on record for both the Lothians, and there is an old record of Maling's from Cresswell Woods, Northumberland.

41. *S. ANGUSTEA*. Leech, p. 20.—We got this on Cheswick Links in 1900, where it was not uncommon, and had specimens in our collection, without data, taken earlier than that. William Evans had it in numbers from the lighthouse on Isle of May in 1911 to 1914.

42. *S. PALLIDA*. Leech, p. 21.—Another of our captures at Cheswick in 1890, and Scremerston in July 1893. It seemed to be in at least fair numbers. On record for Edinburgh, but from the Fife side.

PTEROPHORIDÆ.

43. *PLATYPTILUS OCHRODACTYLUS*. Leech, p. 51.—Mr J. S. T. Walton has found the type not uncommon about Stocksfield.

The var. *bertrami* occurs with some frequency at Berwick and Alnwick, and I believe we also took it about Haggerston and Kyloe. Shaw got it once on the sea-banks at Eyemouth; and Elliot recorded it for Roxburghshire.

44. *P. ISODACTYLUS*. Leech, p. 52.—We got this at Berwick in 1901; I am not quite sure as to the exact locality, but believe it was Belshill. Elliot recorded it from Roxburghshire. William Evans thought he had taken it at Merchiston, for the Forth area, in 1894.

45. *P. GONODACTYLUS*. Leech, p. 53.—We got this at Cheswick in 1888, and afterwards found it not uncommon. Mr Grant Guthrie recorded it from Hawick, Roxburghshire; and Evans from North Berwick, East Lothian.

46. *AMBLYPTILUS ACANTHODACTYLUS*. Leech, p. 54.—Rather common in most places. Learmouth in 1889, Cheswick Links, etc., in Northumberland; considered rare by Shaw on sea-banks, Eyemouth, Berwickshire; and got by Mr Guthrie at Hawick, Roxburghshire.

47. *A. PUNCTIDACTYLUS* (= *COSMODACTYLUS*). Leech, p. 56.—I took this at Twizell House in 1889, and found it not infrequent about Berwick later. James Hardy recorded it from Pease Dean, Berwickshire, more than fifty years ago, where William Evans got it in 1894. I have seen it on the Tyne above Alston.

48. *OXYPTILUS HIERACII*. Zell.—Barrett gives Newcastle as a locality from Stainton's *Manual*; but I have no other knowledge of it in the district.

49. *MIMÆSIOPTILUS BIPUNCTIDACTYLUS*. Leech, p. 59.—Generally distributed over the district, one of the commonest of our "Plumes."

50. *M. PTERODACTYLUS*. Leech, p. 61.—Occurs commonly about Berwick, and in other places in Northumberland, along roadsides and hedges; and the like remarks apply to Berwickshire, Roxburghshire, and neighbouring counties.

51. *PTEROPHORUS MONODACTYLUS*. Leech, p. 62.—Not rare on Cheswick Links, and probably elsewhere. Evans recorded it from Gullane Links, East Lothian.

52. *LEIOPTILUS TEPHRADACTYLUS*. Leech, p. 64.—Taken at Eyemouth by Shaw in 1876, but I know of no other localities for the district, though it occurs not far to the south, near Alston.

53. *L. OSTEODACTYLUS*. Leech, p. 64.—We got this at Learmouth, Northumberland, in 1888; and near Kelso a year or two later. Mr Guthrie has recorded it from Hawick; the last two localities being in Roxburghshire.

54. *L. MICRODACTYLUS*. Leech, p. 65.—Sea-banks, Berwick, in 1888; Carham on Tweed, 1898; Eyemouth (Shaw), 1876; Roxburghshire (Elliot), 1882.

[55. *ACIPTILUS GALACTODACTYLUS*. Leech, p. 66.—I am pretty confident we had this at Berwick, from the sea-banks; but the specimens are lost, and some younger man must confirm it.]

56. *A. TETRADACTYLUS*. Leech, p. 68.—Appears to be common in many places, a sub-Alpine species. I have taken it at Berwick (1888), Kyle, and on the railway banks below Lamberton. Shaw got it at Eyemouth, Mr Grant Guthrie at Hawick (common), and Elliot in the Jedburgh district.

57. *A. PENTADACTYLUS*. Leech, p. 68.—We took this more than once at Twizell (1888 and later), and also at Allerdean, and I think at Scremerston, but never found it but singly.

58. *ORNEODES POLYDACTYLA* (= *HEXADACTYLA*). Leech, p. 69.—Generally common over the district, often found hibernating in outhouses and such places. It is scarcely necessary to mention localities, but we always found it plentifully at Berwick, and it has been similarly recorded from Eyemouth, Pease Dean; Hawick, Carham station, Langleyford, and Houxty, etc.

59. *DIORYCTRIA DECURIELLA* (= *ABIETELLA*). Leech, p. 102.

—We found this at Kyloe in June 1895, and at Belshill in 1898, both in Northumberland. No other records for the district, but it occurs in Cumberland.

60. *D. PALUMBELLA*. Leech, p. 104.—Taken at Kyloe, Northumberland, in August 1895—our only record, though Barrett gives “Durham and Northumberland” amongst his localities.

61. *SALEBRIA BETULÆ*. Leech, p. 100.—One taken at Kyloe Wood, 28th June 1887, which seems to be regarded as an early date; it was beaten from birch. Profiting by that experience, several others were taken there later; but in July of the following year it was found in some profusion, resting upon rocks and bracken at one spot on the adjoining moor, where, however, the moths proved difficult of capture owing to their agility in escaping into the wood.

62. *S. FUSCA* (= *CARBONARIELLA*, Fisch., *PHYCIS FUSCA*, Haw.). Leech, p. 100.—Widely distributed, and plentiful enough in some places. It flies in the sun, and rests on rocks and stones, on burnt areas on our moors, which its dusky colouring closely assimilates. The larvæ feed on the tender shoots of young heather in such situations, as well as upon lichens. Leech says they feed (in captivity) upon willow.

I have seen the moth, in profusion, towards the end of June, since 1887, on the moors at Kyloe, Hepburn, Beanley, and Houxty. It is usually on the wing for about a month, but I caught one, and saw several others, flying on Knaresdale Moor as late as 22nd October 1918.

In Berwickshire it occurs on Coldingham Moor, and doubtless also to the westward; Evans recorded it from East Lothian, and Elliot from Roxburghshire.

[63. *PEMPELIA DILUTELLA* (= *PHYCIS ADORNATELLA*, Tr., and *SUBORNATELLA*, Dup.). Leech, p. 101.—Recorded for Edinburgh, according to Barrett, but I do not know of any localities for our immediate district.]

64. *HYPOCHALCIA AHENELLA*. Leech, p. 108.—Not rare about Berwick, Scremerston, etc., where first noticed in July

1887 ; nor at Eyemouth (Shaw, since 1876). Has been recorded for the Edinburgh district by William Evans, and, apparently, for Roxburghshire.

65. *ACROBASIS TUMIDELLA*. Leech, p. 108.—We got this in 1887, at Kyloe I believe, or at any rate in North Northumberland, but only a single specimen, and its locality label went astray. Robson records it for the south of Durham.

[66. *RHODOPHÆA ADVENELLA*. Leech, p. 106.—Another species, which I believe we got at Kyloe in 1887, but its identification was not beyond doubt. Only one record for Durham.]

67. *GYMNANCYLA CANELLA*. Leech, p. 99.—One on Cheswick Links, Northumberland, 23rd July 1887.

68. *HOMÆOSOMA BINÆVELLA*. Leech, p. 93.—William Evans recorded this from Luffness in 1895, which is still, I believe, the only Scotch locality. It is a little wide of our district but is worth mention. The larva feeds on thistle heads (*Carduus lanceolatus*) so that it need never fear starvation here ?

69. *H. CRETACELLA* (= *SENECIONIS*). Leech, p. 93.—We had this from Cheswick Links in 1887, and although there was some difference of opinion as to whether it was *binævella* or *cretacella*, Mr South inclined to the belief that it was the latter.

70. *H. NIMBELLA*. Leech, p. 91.—I took two examples of this in a garden in Lower Ravensdowne, Berwick, in June 1903, but have seen no others. Robson refers to Mr J. B. Hodgkinson's meeting with it in the south-west of the county as the only instance of its capture in Northumberland known to him. Maling recorded it from Newbiggin-by-the-Sea, in July and August 1872,* but I know nothing more of that occurrence ; Robson did not refer to it, and may have missed it, or he may have purposely passed it.

William Evans found it once in the Edinburgh district, but we have no other records.

* *Entomologist*, January 1873, vol. vi, p. 283.

71. *EPHESTIA FICULELLA*. Leech, p. 95.—One bred from larva amongst raisins bought from Dodds' tea-shop, Berwick, in 1890, which seems to be a usual habitat and entitles the species to rank as a native here as much as in other places.

72. *E. ELUTELLA*. Leech, p. 94.—I got this at Berwick in July 1898. Buglass had one at Ayton in 1877.

73. *PLODIA INTERPUNCTELLA*. Leech, p. 98.—We took several of this at Berwick in 1887, but never met with it again. Robson mentions that Finlay took it at Meldon Park, "but never very common."

74. *ANERASTIA LOTELLA*. Leech, p. 87.—Rather common on Ross Links, 13th July 1896, and later at Cheswick, both in Northumberland.

75. *CRAMBUS FALSELLUS*. Leech, p. 74.—Shaw took one on the sea-banks, Eyemouth in 1877: I got one at Berwick in 1888. It is a widely distributed species over the country, and is more likely to have been overlooked with us than to be so rare as these single records might suggest. Evans got it near Edinburgh.

76. *C. VERELLUS*. Leech, p. 74.—We took a single individual, a female, at Scremerston, on 12th June 1887, and had its identification duly verified. No other records for Northumberland or the district.

77. *C. PRATELLUS*. Leech, p. 75.—Fairly common over the district. Cheswick Links, 12th June 1887, and later at Haggerston, Houxty, Sweethope, and many other places in Northumberland.

From Tweed to Cockburnspath, and Lauder in Berwickshire.
Hawick, Jedburgh, and to Galashiels in Roxburghshire.

78. *C. DUMETELLUS*. Leech, p. 75.—Equally common as the last and as widely distributed.

79. *C. HAMELLUS*. Leech, p. 77.—I think we took this on

Cheswick Links in 1887, but were not absolutely sure about it. The specimen was in my collection when it went to the Hancock Museum, and ought to have been available for re-examination—but is not!

80. *C. PASCUELLUS*. Leech, p. 77.—Fairly common at Kyloe in July 1897: other Northumbrian localities being Prestwick Car (Wales) and Angerton, Robson, who also gives some Durham stations. Said to be rare in Midlothian.

81. *C. ULIGINOSELLUS*. Leech, p. 77.—Kyloe in 1897, and later; the only other records for Northumberland (or the district) are those mentioned by Robson—Maling's in 1874 and J. B. Hodgkinson's later, neither of whom gave a locality—and neither of which he seems to have thought quite satisfactory.

82. *C. FURCATELLUS*. Leech, p. 78.—I had several specimens from Cheviot in August 1888 and 1889, when the moth was not uncommon on the slopes west of Langleyford Hope. Our only record for the district, but it occurs in Cumberland and on many of the Highland hills.

83. *C. MARGARITELLUS*. Leech, p. 78.—Local, apparently, but well distributed. In Northumberland I met with it at Langleyford in 1888, but do not find any other records. In Berwickshire it has been more frequently noticed: Foulden and Chirnside in July 1890, Pease Dean, and Broomhouse. In Roxburghshire: Hawick, Malcolm's Moss, and Minto (Guthrie), and Hoselaw.

84. *C. PINETELLUS* (= *PINELLUS*). Leech, p. 79.—I took this at Kyloe in 1888; at Middleton Hall, Wooler, in July 1890; and have seen it at Alston, two or three miles south of the Northumberland march. Ayton is the only Berwickshire locality known to me. Evans took a single specimen on Corstorphine Hill, Edinburgh, on 27th June 1895; and Barrett says "elsewhere in Midlothian."

85. *C. PERLELLUS*. Leech, p. 80.—Will no doubt be found on the other side of the Border, since William Evans met with it

abundantly at Luffness in 1895 ; but our only records as yet are from Northumberland. I took it at Berwick in 1888, and found both the type and var. *warringtonellus* fairly numerous at Cheswick and Goswick in July 1897. Maling recorded it as plentiful at Newbiggin-by-the-Sea, both type and var., in July and August 1872.

86. *C. SELASELLUS*. Leech, p. 81.—One at Berwick, 16th June 1887, another on the sea-banks, 29th July 1893. Our only records.

87. *C. TRISTELLUS*. Leech, p. 82.—Abundant throughout the district.

88. *C. INQUINATELLUS*. Leech, p. 83.—Buglass got this at Ayton ; and I think we got it on Cheswick Links in 1898, although there was a doubt about it which was never altogether removed.

[89. *C. CONTAMINELLUS*. Leech, p. 83.—Was found near Edinburgh by Buchanan White, but we have no nearer record.]

90. *C. GENICULEUS*. Leech, p. 84.—Common about Berwick, Cheswick, Scremerston, etc. ; and also at Aberlady, Tynningham, etc., in East Lothian (Evans).

91. *C. CULMELLUS*. Leech, p. 85.—Abundant throughout the district.

92. *C. HORTUELLUS*. Leech, p. 86.—Another very common species.

93. *CHILO PHRAGMITELLUS*. Leech, p. 70.—Caterpillars collected from the flowering stems of *Arundo phragmites* on Newham Bog, on 18th September 1888, proved to belong to this species, which was afterwards found to be pretty numerous there. An interesting discovery, as there are no other records for the district.

94. *SCHÆNOBIUS MUCRONELLUS*. Leech, p. 71.—Another rare species, for which our only locality is again Newham Bog, where I found it in July 1889, but only sparingly.

95. *GALLERIA SOCIELLA*. Leech, p. 109.—Not rare about Berwick, and widely distributed over the district. A few localities are—

For Northumberland: Haggerston, Waren, Houxty, Meldon Park, Hexham, etc. Eyemouth and Hutton in Berwickshire; Hawick, Kelso, and Yetholm, in Roxburghshire.

The larvæ feed on the wax in humble-bees' nests, and I have noticed where they had entirely eaten up a nest, leaving the poor "bumbler" quite destitute and her family to perish. Robson has remarked upon their also eating the papery cells in wasps' nests, an observation which I can confirm. It seems passing strange that so hefty a creature as a humble-bee should submit to the burglary without apparent protest; more remarkable still that wasps, always so ready to defend their home against any intruder, and which are, moreover, habitual preys upon other insects,* should as philosophically regard the theft; but, most extraordinary of all, that a frail and unprotected moth, without power either of offence or defence, should have acquired the habit of so effectually turning the tables upon an hereditary and forceful foe. It might be difficult to find a more effective illustration of the quixotic ways which Nature seems so often to take a delight in adopting to carry out her apparent phantasms. In modern parlance we might call it "peaceful penetration"?

96. *ACHROIA GRISELLA* (= *ACHRŒA ALVEARIA*, Fb.). Leech, p. 110.—I took a single specimen at Berwick in June 1887, but saw no more of it; nor have we any other records for the district, save that Adam Elliot got it at Caverton, near Jedburgh, Roxburghshire.

(To be continued.)

* For an illustration very much to the point, see an account of a wasp capturing a moth upon the wing, related in a previous part of this paper—vol. xxv, p. 565.

THE BLACK DYKES OF BERWICKSHIRE.

By JAMES HEWAT CRAW, F.S.A.Scot.

THE recent visit of the Club to that part of Herrits Dyke which crosses the moor north of Greenlaw suggests that an account of this and similar dykes might be included in the present issue of the *History*.

In many districts are to be found curious works variously known as Black Dykes, Deil's Dykes, and Grim's Dykes, running across the country, in many cases for a number of miles. They consist of a trench with a mound on one or both sides, and vary considerably in dimensions. The Cambridgeshire Devil's Dyke, some 7 miles in length, has a mound 12 feet wide at the top, measuring 30 feet on one slope and 45 feet on the other to the bottom of the trench, which is 20 feet wide. Several other black dykes are over 20 miles in length. The most important work of this description in Scotland is the so-called Catrail, which has a literature of its own extending over two hundred years, and over which the wars of controversy have raged. The existence of the Catrail as a continuous work is, I believe, disproved: the portion from Torwoodlee above Galashiels to Linglee Hill opposite Selkirk is in all probability continuous; the other portion is an entirely separate dyke, running in a different direction, from the Hoscote Burn to Robert's Linn. Between these two dykes various fragments of differing character have been linked up to support the theory of "The Catrail," entirely, I believe, without adequate evidence.*

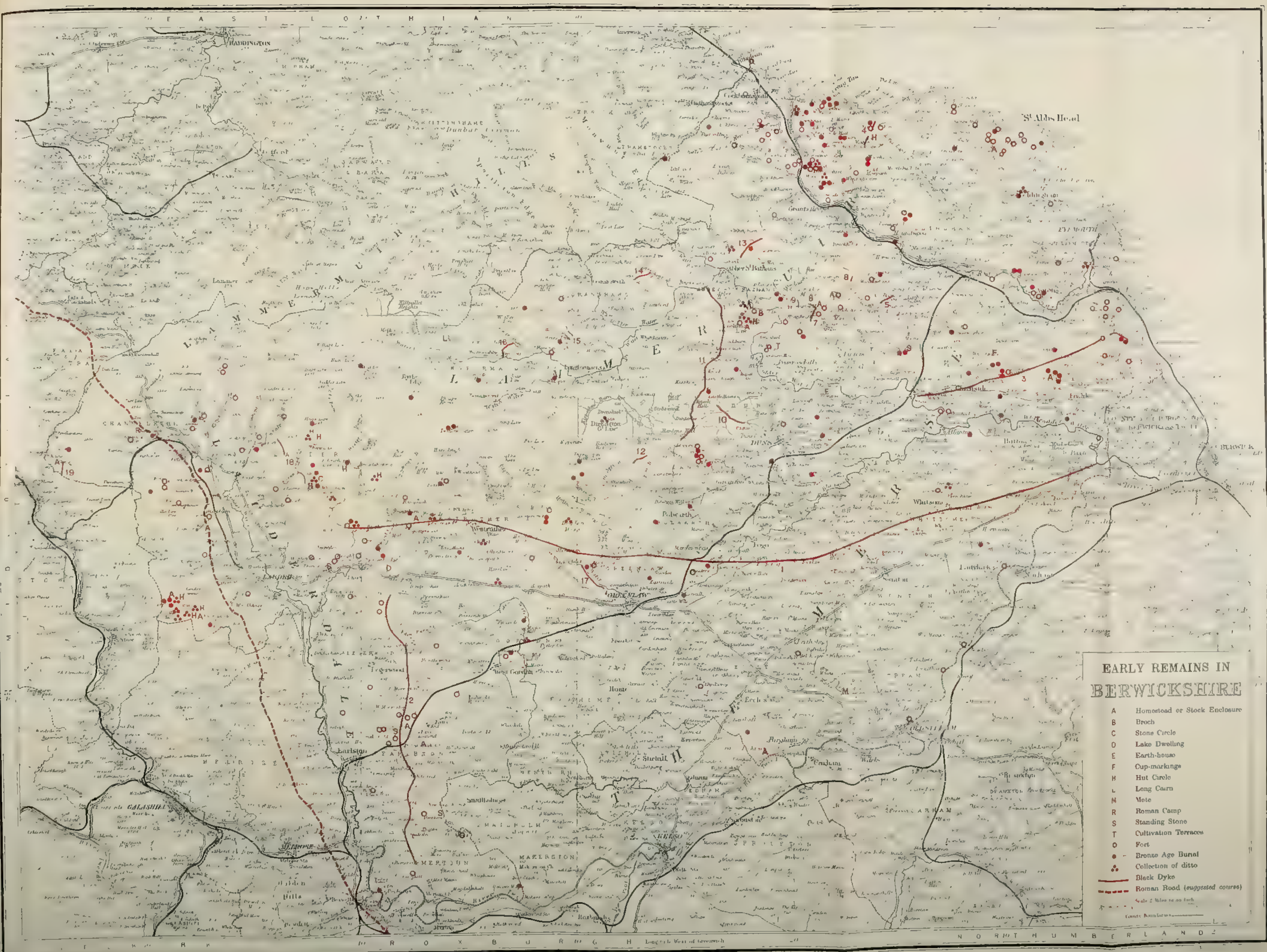
With regard to the age of these remains little is known. They probably cover a period of many hundred years. Allcroft in his *Earthwork of England* quotes strong evidence that some of the English dykes are of pre-Roman date. Offa's Dyke on the Welsh border is supposed to date from the end of the eighth century. A recent visit to the Roman Camp at Pennymuir leads me to think that the black dyke which crosses it is later

* *Proc. Soc. Ant. Scot.*, vol. lviii, p. 40.

than the camp. The remains, however, where the dyke crosses the vallum are far from clear. At Snailscleuch, on the Upper Whitadder, a mound and trench of true black-dyke type cuts off a promontory which is occupied by a collection of hut circles, the two relics being evidently coeval. The name Dane's Dyke in Cleveland is suggestive of a definite period, and it is significant that the name of the chief Berwickshire dyke, Herrits Dyke, is in all probability of Danish origin. A writer in the *Border Magazine* several years ago pointed out that the name is almost identical with the Danish Herredsdige, meaning District Fence—a derivation suggestive alike of the age and the purpose of the dyke.

Various theories have been advanced as to their purpose, whether for defence, communication, or division. While the gigantic works in the south can hardly have been for purposes other than defence, I believe the majority if not all of the Berwickshire examples have been purely boundary marks. This is specially evident in those examples which are drawn across a ridge from the head of one cleugh to that of another, the dyke being discontinued where the stream served for the boundary. In one or two cases a gateway seems to have been left in the course of a black dyke to facilitate the passage of live stock. The course of all black dykes is characteristic, being not straight but of a slightly zigzagged or winding nature. While the usual type is a trench with mound on one or both sides, another and apparently an early type has a series of pits 6 to 9 feet apart in place of a continuous trench.

I have not found any reference to this type outside Berwickshire, but have come across one in East Lothian running over a high ridge to the west of West Hopes. I have also found two in Roxburghshire. One of these is close to Herd Street, north-west of Blackborough Fort; the other is on Park Law, opposite Sourhope. The latter is of special interest, as it is crossed by a black dyke of normal type which must be of later date; this in turn is crossed by a mound of rather more regular form which encloses a large part of Park Law and probably gave its name to the hill. The manner in which this third mound runs up to the entrance of the annex of the fort on the summit shows that it was made while this part of the fort was still in use. As the annex, however, contains two foundations



**EARLY REMAINS IN
BERWICKSHIRE**

- A Homestead or Stock Enclosure
- B Broch
- C Stone Circle
- D Lake Dwelling
- E Earth-house
- F Cup-markings
- H Hut Circle
- L Long Cairn
- M Mote
- R Roman Camp
- S Standing Stone
- T Cultivation Terraces
- O Fort
- Bronze Age Burial
- Collection of ditto
- Black Dyke
- - - Roman Road (suggested courses)
- Scale 2 Miles to an Inch
- Source: Ordnance Survey

of rectangular form, it was evidently in use much later than the fort itself, which contains numerous hut circles.

No completely satisfactory explanation has been offered of this curious form of trench. In the absence of any better reason, I can only suggest that the pits may have been formed for the purpose of conserving water.

Several of the remains here described are mentioned in the *Inventory* of the Ancient Monuments Commission; references in early volumes of our *History* will be given in footnotes. Dr Hardy referred to several black dykes in Northumberland and Berwickshire in 1872.*

The former existence of remains of this character is suggested by the names Cumledge Blackdykes, and East Nisbet Blackdykes, which occur in the Sheriff Court Books of Berwickshire in 1620. In Nisbet's *Heraldic Plates* † Blackdykes is mentioned, probably near West Nisbet.

The course of the Blackdykes is shown on the accompanying map of the county. It has been thought desirable to show at the same time the sites of the other early remains, so far as these are already known.

1. *Herrits Dyke*.—The best known and apparently the longest of the Berwickshire black dykes is that known as Herrits Dyke, running from Harefaulds on the farm of Blythe in Lauder parish to the Whitadder some 2 to 3 miles above its junction with the Tweed, a total distance of 23 miles. Only some $2\frac{3}{4}$ miles now remain visible on the surface, but the writer of the *Statistical Account of Greenlaw Parish* (1792) states that about 1730 it could be traced across the Merse. Its course is shown on the map in vol. i of *Caledonia* ‡ running by Paxton to the bend on the Whitadder opposite Edrington. Sir Walter Scott § thought it might be either a continuation of the Catrail or an older work of the same kind.

Herrits Dyke starts from the stone wall or rampart of Harefaulds Fort immediately to the south of the entrance at the north-east side of the fort, and runs east across the

* *Hist. Ber. Nat. Club*, vol. vi, p. 360.

† Page xix.

‡ Chalmers gives as his authority John Spottiswoode of Spottiswood, who had traced its course about 1750.

§ *Border Antiquities*, vol. i, p. xxiii.

moor for almost $\frac{1}{4}$ mile till it reaches a stone wall about 40 yards west of a field gate. This portion shows an over-all width of 21 feet, the top of the mound being about 1 foot above the trench, which is at its north side. For about 100 yards from the fort the top of the mound is strengthened by large stones; as this feature is most pronounced near the fort, these stones have probably been taken from it; this might suggest a date subsequent to the occupation of the fort. After passing beneath the wall at the edge of the moor, the dyke is obliterated for 500 to 600 yards across cultivated ground and becomes again visible for over 100 yards on a corner of the moor 400 yards N.N.W. of Blythe steading, where its width is 14 feet, with the ditch $1\frac{1}{2}$ feet deep. Cultivation again intervenes for 1400 yards till the Bruntaburn is reached 400 yards north of Bruntaburn Mill; here the mound is visible on both banks of the stream, but is again lost eastward till the Craig Plantation is reached. Here it is again intermittently traceable for over 100 yards, running from the south side of a gateway, to Spottiswood Fort; the width is 24 feet and the depth of the trench 2 feet 9 inches. It is lost shortly before reaching the fort, but is said to have passed along its northern rampart.

Beyond this its course is obliterated for about $2\frac{1}{2}$ miles, but it has probably run by Eastside along the north side of Jordonlaw Moss, and close to the north of Westruther village.* It crossed the Duns and Westruther road 800 yards east of Westruther Church; here I found its course revealed in a corn crop in the westmost field of Cammerlaws. It enters the field about 60 yards from its north-west corner, crosses a small burn, and runs in the direction of the south-east corner of the field; it may be represented, after leaving the field and crossing the burn, by a slight hollow running up the bank, close to where the Harlaw and Wedderlea track crosses the burn.

Again a blank intervenes for almost $2\frac{1}{2}$ miles, but the line has probably run across the north side of Harelaw Moor, a short distance to the south of the Virtue well, crossing the Blackadder near a small syke and running over the north shoulder of Haliburton Hill, probably within 100 yards of the summit. It is again found, merely as a track in the heather, some 500 yards east of the summit, and continues, after crossing the corner

* *Hist. Ber. Nat. Club*, vol. xviii, p. 115.

of a cultivated field, to the Fangrist, 1200 yards above its junction with the Blackadder. This portion is some 1500 yards long. Part of it is quite distinct, appearing as a line of white bent-grass across the dark heather. It descends obliquely as a hollow track to the Fangrist, emerging on the left bank by way of a small feeder, up the left bank of which it slopes as a trench much deepened apparently by the action of water. From this point to the Duns and Greenlaw road, a distance of over $1\frac{1}{4}$ miles, is the best-preserved portion of the dyke, showing over-all measurements up to 36 feet, with the mound 3 feet 9 inches above the bottom of the trench; except at the west end, near the burn, the trench is on the south side of the mound. After crossing the road the dyke approaches a small burn and becomes obliterated at the edge of cultivated land; the line may have been continued by the burn.

The dyke is then obliterated for over a mile; what may be its continuation is found on Chesters Brae, immediately to the south of the railway line and c. 600 yards north of Chesters. Here the trench slopes up the bank and is marked on the Ordnance Map as a fort; the evidence for this, however, as is pointed out in the *Inventory*, p. 86, is very doubtful. At the top of the bank the line is again lost, but $\frac{1}{4}$ mile farther east it is continued for about 150 yards by a trench close to the south side of a wood. After being lost for over 1000 yards, what may be its continuation is found running up the wooded slope on the right bank of the Blackadder, opposite Sisterpath Waulkmill.

From here I have been able to find no further surface evidence of the dyke; the rich lands of the Merse have been so long under cultivation that probably no trace is left, and in deep soil of this character crops do not so readily reveal the presence of former excavation. According to Chalmers' map the line may be expected to run approximately as follows: to the north of Fogomoor Smithy, through the Easter Wood, passing south of Fogorig by Hunthall and Ryeslaw, then running between Harcarse and Harcarse Hill to South Laws, and then keeping to the south of Whitsome,* from there by Hilton

* At Whitsome the names Herriot Bank and Heritage occur near this line. There is no evidence, however, to show that the names were derived from Herrits Dyke.

to Winfield. Here, after a blank of 9 miles, we again strike solid ground; the field to the east of Winfield steading, at the south side of the Hilton and Fishwick road, is called Blackdykes, and as Chalmers' map shows Herrits Dyke crossing the spot, we would seem to be justified in fixing this as the true line of the dyke. From here by Broadmeadows to the Whitadder is a distance of about $2\frac{1}{2}$ miles; a direct line would lead by the south side of Paxton village to the Well Mire, where a cleugh descends to the Whitadder; on the map in *Caledonia*, however, the dyke appears to be placed rather farther north. It may be noted that the whole of the line from Hunthall to Blackdykes, over 7 miles, and perhaps farther, is in close proximity to modern roads or lanes. Herrits Dyke is stated to have run to Hutton; * the village of Hutton lies over a mile to the north of the above line, but from Winfield to the Whitadder its course is in Hutton parish.

2. *Boon Black Dyke*.—The course of Boon Black Dyke has been fully described in our *History*.† It is there stated by Mr James Tait to have suffered severely from cultivation not very long before 1880. Mr Tait says it is first traceable on Boon Moor, but in vol. v ‡ (where it seems to be either confused with Herrits Dyke or regarded as a branch of the same) it is stated to be traceable on Thornydykes. It is still traceable for about half a mile near the northern extremity of Boon Moor, some 1500 yards E.N.E. of Old Boon, running at first S.S.W. and then due south. The width over all is here about 28 feet, the mound being 15 inches above the trench, which is placed at its east side. Both Mr Tait and the writer in vol. v state that it passed Corsbie, the former continues the line “up the ridge or spur that runs out from Legerwood Black Hill . . . running down the Black Hill spur in the direction of West Morriston . . . passing on its right an old camp” (West Morriston Fort, No. 243), “and shortly after on its left a great gravelly knowe called ‘Kelso Hill,’ now removed, left the farm of West Morriston and the Parish of Legerwood and entered the farm of Purveshaugh, which is in the Parish of Earlston. It passed at some distance west from the steading of Purves-

* *Hist. Ber. Nat. Club*, vol. xviii, p. 115.

† Vol. x, p. 307.

‡ Page 114.

haugh, having on its right side the old farm-house of Standingstone. . . . The Black Dyke next crossed the most easterly field on the farm of Georgefield, from which it proceeds on towards a moor on the farm of Yarlside, where for about half a mile it is in its best state." It is here for the first time since leaving Boon Moor that we again find traces of the dyke to-day—a blank of over $4\frac{1}{2}$ miles. The "moor on the farm of Yarlside" is now under wood and called Shielfield Wood; the dyke crosses the road almost 1000 yards east of Georgefield steading and is first seen as it enters the Hannahshiels Strip, where it is distinctly marked running S.E. for almost 300 yards. Tait remarks that this part gave, when he wrote (1883), "a very fair idea of what the Black Dyke was throughout most of its course within the memory of the present generation"—say about the middle of last century. It "next proceeded across the farm of Park," and is still traceable on cultivated land, running up the slope some 200 yards south of Whitefield. It is also seen crossing the north-west corner of a plantation (now cut down) to the east of Redpath Moss, and then becomes very distinct for 600 yards running up Redpath Hill by the west side of the boundary wall between Earlston and Mertoun parishes, being traceable as far as the road which crosses the hill; the overall width is here 30 feet, with trench $2\frac{1}{2}$ feet deep and mound at the east side. Again we fall back on Mr Tait. "After leaving the farm of Brotherstone and cutting off a small portion of the farm of Craighouse, it crosses the highway leading from Melrose to Smailholm, and thereafter maintains its existence as a lawful way, fenced by hedges and dykes, and having the traditional reputation of being an old Roman road. It next proceeds by the east end of Bemersyde Hill in a southern direction, till it reaches the road from Mertoun to St Boswells, and either becomes one with this road or is no farther traceable. If continued by the Mertoun road to St Boswells, it may have joined the Watling Street, a local name for which is the Weirgate." A place called "Blackdyke" is shown on the Berwickshire map in Thomson's *Atlas* (1821), some 500 to 600 yards west of Craighouse; a field on Halidean Mill still continues the name. A writer in the Hawick Archæological Society's *Transactions* * believed the Black Dyke to be "a continuation of the Catrail

* October 1870, p. 66.

which runs through the upper district of Teviotdale and enters the county of Northumberland a little to the south of Limekiln-edge." The remains near Mertoun House, identified as part of the Black Dyke in the *Border Magazine*, January 1910, are clearly of modern construction.

The total length of Boon Black Dyke is over 10 miles, or about 12 if it extended to Thornydykes. Of this less than $1\frac{1}{4}$ miles are now traceable.

3. *Edington Hill Black Dyke*.—This black dyke is best preserved where it crosses the south end of Edington Hill South Plantation in the parish of Chirnside. Here it shows an overall width of 27 feet, with trench 1 foot 3 inches below the top of the mound, which lies to its south side. From the east side of the wood 120 yards north of Edingtonhill Lane it runs west-south-west for some 270 yards, crossing the Lane about 15 yards east of the south-west corner of the wood. It is sometimes visible in the crop on the field south of the Lane, and can be seen as a slight hollow in the south-east corner of a grass field east of Edington Hill steading; in the next field it is traceable only in the crop, and crosses the road about 160 yards south of Edington Hill farmhouse. In the Goat Knowe field it is traceable in crops, and passes out 50 yards north of the south-west corner of the field. The ditch is seen as a hollow where it crosses a narrow strip of wood to the north of the Lazybeds plantation; it is here about 90 yards south of the Chirnside and Ayton road. It continues west with a course roughly parallel to the road, and crosses the Reston and Coldstream road immediately to the south of Chirnside village. From this road the line is probably represented for a space by the south boundary fence of the village gardens. Here I have not been able to trace it, but it is again distinctly marked in crops in the Lodge Crofts field, the second field to the east of Ninewells Mains. It enters the field 113 yards south of the Chirnside and Duns road and leaves it 44 yards south of the road, running in the direction of Ninewells Mains steading. In the same line a low mound runs down the bank of the Whitadder 90 yards south of the Duns road at the bridge, but the remains are not sufficient to justify a pronouncement upon their character.

Returning to the point where we began, we find the dyke leaving Edington Hill wood and entering Foulden parish; it is

traceable only in the crop, running E.N.E. for almost 1200 yards to the Moorpark and Blackburn road. Beyond this the line is continued by the boundary between the parishes of Foulden and Mordington on the south and Ayton on the north; this boundary runs through the fort at Habchester. From the road to the fort is a distance of about $1\frac{3}{4}$ miles; only at one point are there any remains resembling the dyke; at the south end of a strip of wood running from Whiterig to the boundary there is a trench with mound to the south measuring 13 feet over all, with a depth of 1 foot 9 inches. Beyond the fort a strong growth of thistles 6 feet wide reveals a trench running down the hill some 40 yards east of the wall and parallel to it. At the foot beyond the road is a marsh, and beyond this in the same line is a trench and mound running for a few yards E.N.E. and then turning E.S.E. and running along the racecourse for almost half a mile. Sections here show a width of 21 feet, with mound to south 1 foot 6 inches high, and farther east a width of 36 feet with no mound and a depth of $2\frac{1}{2}$ feet. The remains to the north of the fort are all uncertain, and the portion in the Whiterig strip bears signs of later work, possibly to adapt the older work to its use as a modern boundary.

My attention was first called to this dyke by the signs in the crops on West Foulden. I had a section cut across, which showed the bottom of the trench to be 2 feet 10 inches beneath the surface; the width of the trench had probably been about 10 feet. Silt had accumulated in the bottom of the trench to a depth of 10 inches before the mound had been thrown in. The total distance from the Whitadder to Habchester is about $5\frac{3}{4}$ miles, and to the end of the track on the racecourse $6\frac{1}{2}$ miles. The course is approximately parallel to that of Herriots Dyke, which lies some 3 miles to the south.

4. *Dowlaw Road Black Dyke, Cockburnspath.*—This dyke, which is of the pitted-trench type, cuts across the angle formed by the Old Post Road and the Dowlaw Road. Commencing at the east side of the latter, it runs south by east 140 yards, crosses the Old Post Road, and becomes obliterated on the moor some 50 yards to the south. The remains are faint and show an over-all width of 18 feet, with a depth of 18 inches, the pits being 6 feet apart. A small collection of hut circles lies 40 yards to the east on both sides of the Old

Post Road. At Dowlaw Road Fort (No. 50), which lies some 600 yards N.N.E., the ramparts at the east side become obliterated, and their line is continued for some 200 yards by a slight depression running north-east, with an irregular course somewhat similar to that of a black dyke, as shown in fig. 21 in the *Inventory*.

5. *Greenburn Black Dyke, Coldingham Parish*.—This line is only traceable in the growth of crops. I was first told about it by Mr William Outterson, farm-steward, Greenburn. It is traceable from the Greenburn and Mayfield march, a few yards north of the Duns and Reston road. It runs north-east, crossing the Lint Burn 230 yards north of the public road at Greenburn, and continues in the same direction for at least 200 yards. Its course might probably be traced farther. The total length is about 600 yards.

6. *Drakemyre Black Dyke, Bunkle*.—On Drakemyre Moor, close to Marygold Hill Plantation, is a large enclosure connected with a fort in the wood. From the north-west corner of the enclosure a line of black dyke runs north-west parallel to the edge of the Drakemyre Strip. It is evidently of earlier date than the enclosure, from the trench of which the excavated earth has been thrown into the trench of the black dyke; the west wall of the enclosure has apparently utilised the line of the black dyke, running S.S.E. for some 200 yards until it becomes obliterated in the wood. Northwards, 150 yards from the enclosure, there is an original gateway 24 feet in width through the dyke, the ends of the dyke on either side being out of alignment, probably to facilitate the passage of live stock. A somewhat similar gateway is seen near the excavated enclosure on Clints Hill in the parish of Channelkirk. Gradually approaching the Drakemyre Strip, the dyke is lost at a distance of some 300 yards from the enclosure.

Mr Francis Lynn * shows the dyke running north-west some 1500 yards farther, following apparently the west edge of the strip and running through Aikieside Wood to the Duns and Grants house road. He also states that it "crosses the valley and rises to the higher ground on Blackerston farm," but I have been able to find no trace beyond where it enters the strip. Mr Lynn may have been fortunate in finding vegetation signs not usually

* *Hist. Ber. Nat. Club*, vol. xv, p. 365 (plan).

visible, but I have been told by his companion on the occasion of his visit to the spot, that he did not consider there was sufficient evidence to justify a continuation into the Drakemyre Strip. Any remains in Aikieside Wood would be very unlikely to be completely lost, unless the line ran to the head of the cleugh at the south end of the wood. The dyke measures 23 feet over all and has a trench 3 feet deep. The last 100 yards of this work is of the pitted-trench type, with pits 6 feet apart; the mound is at the west side of the trench.

7. *Marygold Black Dyke, Bunkle*.—This black dyke, the remains of which are only about $\frac{1}{4}$ mile in length, begins in the middle of the strip about 100 yards south of the point where the Drakemyre Black Dyke leaves the large enclosure. It runs south-west across the moor, curving to the south, entering Marygold Hill Wood, and becoming there obliterated. It measures 15 feet by 2 feet in depth and is of the pitted-trench type, the traverses being 6 to 9 feet apart, and the mound at the south side. It has every appearance of being older than the works to the east, which have probably obliterated it in this direction. Mr Lynn describes it,* and attributes the pits in the trench to natural causes, being apparently unacquainted with this type of black dyke.

Two fragments of black dyke, also of the pitted-trench type, occur in the vicinity, and were also observed by Mr Lynn:

8. *Horsley Black Dyke*.—One of these is close to the boundary between the parishes of Bunkle and Coldingham, 1200 yards west of Warlawbank. There are only about 90 yards of it left on an uncultivated corner of ground close to the Thief's Road; it measures 24 feet over all, trench 3 feet deep, pits 9 feet apart; the mound is at the east side. It runs N.N.E. as if to pass between the steadings of Horsley and Brockholes. Vegetation traces of a track said to pass from Horsley ground to Brockholes east of the Fawcett Wood may be a continuation of this line, as may also earthen dykes once visible on Horsley.† Southwards from the Thief's Road the dyke has probably run to the head of Fosterland Burn.

9. *Hoardweel Black Dyke*.—The other fragment commences near the head of the cleugh at the south end of Aikieside

* *Hist. Ber. Nat. Club*, vol. xv, p. 372.

† See *Hist. Ber. Nat. Club*, vol. vii, p. 265.

Wood, it runs at first south and later curves to the south-west across a portion of moor on Hoardweel farm, becoming obliterated about 100 yards from cultivated land. Its total length is some 200 yards; it measures 20 feet over all, with trench 2 feet 3 inches deep. The mound is at the west side and the pits are 6 to 9 feet apart.

10. *Jeanie's Wood Black Dyke, Duns Parish.*—This dyke begins a short distance above the right bank of Plendernethy Burn, about $\frac{3}{4}$ mile W.S.W. by W. of Castle Mains stading in Duns parish. It runs south-east for over 150 yards and enters Young Jeanie's Wood, where its course has for a space been used as a surface drain; it later becomes obliterated. On rough ground to the north there is for a space a mound on both sides of the trench; measurements over all 34 feet, depth 2 feet 9 inches. Nearer the wood the mound is to the north-east side, with measurements 30 feet and 3 feet.

The line has emerged from the wood and followed a small syke for about 170 yards; the syke then turns S.S.W. and the line continues E.S.E., roughly parallel to the wall at the edge of Harelaweraigs Plantation and some 140 yards from it. Here there is little or no trace of the ditch, which has been at the north-east side of the mound; the latter measures 14 feet by $2\frac{1}{2}$ feet. The dyke continues E.S.E. for some 600 yards, being 65 yards distant from the wood when it becomes obliterated. Its direction here is towards Duns Law.

The mound at the north side of the fort on the summit of the Law leaves the fort and runs west for a short distance. Whether the black dyke is a continuation of this rampart or not, there is insufficient surface evidence to decide, but similar features have been observed elsewhere. The total length of the dyke is rather under a mile, about half of it being still traceable. An extension to Duns Law would add about $1\frac{1}{4}$ miles.

11. *Hardens Hill Black Dyke.*—The southern portion of this dyke has been described in the *Inventory* (No. 204); its origin, however, is much farther north in the parish of Abbey St Bathans. The line has made very free use of streams in its course, the actual dyke being employed only to connect these over the watersheds. Starting at the Whitadder south of Barnside the line has followed the Steele Burn southwards to its source; from the head of the ravine the actual dyke com

mences, and is very distinct for 40 yards, showing a width of 32 feet and depth of 7 feet, with the mound to the east side; near the north end it is intermitted by a traverse. Then follows another portion of 40 yards running to a stone wall; this is of the type with pitted trench and is not so well preserved as the northern part. The width is 18 feet and the depth 2 feet 6 inches, the traverses being 9 feet apart from crest to crest and raised 6 inches above the bottom of the trench. To the south of the wall cultivation has obliterated all surface traces, but the dyke has probably run to the Eller Burn at the confluence of the Hen-toe Burn, following the latter for some distance.

On the moor about $\frac{1}{2}$ mile west of the summit of Cockburn Law is a track faintly marked, it is on the true line and probably is the dyke, which is traditionally said to have crossed the moor to the west of the Law. It is here found at the south side of ground showing remains of cultivated ridges and runs for 340 yards, at a distance of 160 to 180 yards from the west boundary of the moor, to the wall at its south boundary, beyond which is cultivated land. This portion runs towards the head of Cockburn Dean, down which the line has followed to its junction with the Mill Burn.

After passing up the Mill Burn the line is again found as a dyke at the head of a cleugh some 350 yards north-east of the summit of Harden's Hill. Here for 18 yards it shows a width of 39 feet and a depth of 4 feet 6 inches, with mound to the east; then the type alters to that of the pitted trench, measuring 16 feet by 3 feet, with traverses 9 feet apart. The similarity of this alteration of type here and on Abbey Hill confirms the continuity of the dyke; the feature is probably due to a deepening of the end of the older pitted type in order to enable the line to be more readily found where it changes from the stream to the dyke and trench. After running across the moor for about 100 yards and south through the wood on Langton Edge for about 170 yards, the dyke is obliterated for almost $\frac{1}{4}$ mile, but is again found in the same wood close to the Duns and Longformacus road. Crossing the road it is traceable for 60 yards immediately to the west of Hardens Plantation; here it measures 33 feet by 4 feet 6 inches without traverses. Before crossing the road the Black Dyke is accompanied by several irregular mounds and trenches. The total distance from the Whitadder to

Hardens Hill road is 5 miles ; of this distance there is traceable less than $\frac{1}{2}$ mile of dyke.

12. *Kettelshiel Black Dyke, Longformacus Parish.*—Beginning on Lambs Rig on the moor about 2000 yards north-east of Kettelshiel and near the head of a syke, this dyke runs north-east for about $\frac{1}{4}$ mile, and becomes obliterated shortly after crossing the march dyke to Langton Lees ground. It measures 20 feet over all and is 2 feet deep ; the mound is at the north side of the trench.

13. *Quixwood Black Dyke, Abbey St Bathans.*—This black dyke is referred to as the “Blakdyke of Quikiswode” in a Perambulation of the Marches of the Commonty of Cockburnspath and Chirnside, dated 1569 ; it was then used to mark the southern boundary of the Commonty. What was then described as its east end is about $\frac{3}{4}$ mile W.N.W. of Quixwood in Abbey St Bathans parish, and its course can still be traced to this point by vegetation signs. Farther east the land is all cultivated.* The dyke runs W.S.W. for 250 yards to the Duns and Cockburnspath road, and after crossing it $\frac{1}{2}$ mile north-west of Moorhouse and 55 yards south-east of the edge of the moor it becomes traceable by surface indications, running some 800 yards south-west into a little cleugh which descends to the Whare Burn north of Edgar’s Cleugh ; the width is 10 feet and the depth of the trench $1\frac{1}{2}$ feet. This part has fortunately been preserved from the destruction which has been the fate of so much of its course by a special clause in the lease of the farm of Blackerston. The length of the dyke is about half a mile.

14. *Ellemford Black Dyke, Cranshaws Parish.*—Starting on the right bank of the Greenhope Burn about $1\frac{1}{4}$ miles N.N.W. of Ellemford farm steading, this dyke runs up the steep bank, where it is deepened by denudation to some $8\frac{1}{2}$ feet. It runs for some 420 yards W.S.W. across the moor, gradually becoming fainter, and finally disappearing. Near the west end the trench is lost, the mound measuring only 6 feet by 9 inches, but farther east the trench is 5 feet 3 inches deep and the over-all width 22 feet. This dyke has been said to be a continuation of

* A black dyke is said to have crossed part of the farm of Blackburn ; this may have been a continuation of Quixwood Black Dyke (see *Hist. Ber. Nat. Club*, vol. xi, p. 135).

Quixwood Black Dyke; the alignment is somewhat similar, but no connecting trace remains in the $2\frac{3}{4}$ miles separating the two dykes.

15. *Redpath Black Dyke, Longformacus.*—Two parallel dykes lie on the moor about 1100 yards south-west of Redpath. One of these commences 90 yards north of Redpath road-end, and runs W.N.W. for 125 yards to within 8 yards of the Longformacus road; it then bends N.N.W.; its total length is 350 yards. The other dyke lies to the north-east, being distant 130 yards at its north-west end; its length is 180 yards. At its best-preserved point the south-west line shows an over-all measurement of 32 feet, with trench 4 feet 9 inches deep; the soil has been thrown almost equally to either side; the mound on the north-east or lower side is rather larger than that on the south-west side.

The north-east line is of slighter proportions, showing an over-all width of 27 feet, with trench 2 feet 9 inches deep; there is a mound on each side, that on the north-east or lower side being the larger. Both lines terminate to the south-east on land that has been cultivated; and to the north-west in a bog, beyond which the land also shows signs of having been under cultivation.

This is the only example of double lines of dyke in the county, but they are stated to be not uncommon in Yorkshire and in other localities.

16. *Dye Cottage Black Dyke, Longformacus Parish.*—This dyke starts from the left bank of the Dye 220 yards below Dye Cottage and directly opposite Pow's Cleugh. It runs north up the slope forming the boundary of a small larch plantation and continues to the east of a wood of Scots firs, where it is cut through by a strong mound of later type. The dyke then curves north-east outside cultivated fields till it reaches the bank of the Wester Burn. Some 200 yards from its northern end a branch leaves the line and proceeds to the burn about 50 yards lower; this branch is again cut across by the work of later type. The total length of the dyke is over 900 yards; its over-all measurement is 13 feet, with a trench on the west side of the mound 2 feet deep. The work is evidently a boundary line to cut off the promontory formed by the Dye and the Wester Burn.

Note.—The mound of later type commences at the Dye

$\frac{1}{4}$ mile above Trottingshaw and runs north-east with a very winding course for a mile and a half to the sheep-folds at the edge of cultivated land $\frac{1}{2}$ mile north-west of Horseupcleugh. It measures over all some 21 feet; the mound is formed of earth faced with stones on both sides but chiefly on the north side; there is a ditch on each side, the north ditch being some 3 feet deep, and that on the south side less. This is not a black dyke, but is undoubtedly very old.

17. *Broomhill Black Dyke, Greenlaw Parish.*—This dyke is found in the Blackdikes Strip of Plantation 550 yards W.N.W. of Broomhill, in Greenlaw parish. Here it runs for 150 yards in a south by west direction near the east side of the strip and has an over-all width of 32 feet, with two mounds and a trench 4 feet deep. To the south of the Haliburton road, in the Crawlee Plantation, it is not traceable, but Mr Gibson* found traces of it here. He states that remains of it have also been seen on the farm of Rumbleton. In the Blackdikes Strip the remains are obliterated before reaching the steep bank of the Blackadder, but a track stated to be its continuation is found running W.N.W. close to the top of the bank for some 2400 yards. This is called Black Dykes on the Ordnance Map, which also indicates a "Station" on its course. North of a tumulus the Ordnance Map shows the dyke running down to the Blackadder below the Fangrist junction, and continuing up the opposite bank to Blackcastle Rings Fort, but its true course seems to turn west after passing the tumulus and to descend to the Blackadder about $\frac{1}{4}$ mile above the Fangrist junction. The best-preserved portion of this part of the dyke is from the tumulus southwards to where it leaves the rough ground and enters cultivated land; it has, however, much more the appearance of a road of not very early date; there is no sign of a mound, and its windings are those of a road rather than of a black dyke; the manner in which it descends to the Blackadder is also suggestive of a road. It is significant that the writer of the *New Statistical Account* states that the name Blackdikes was only given to the portion in Blackdikes and Crawlee Strips. The whole length of both portions is about $1\frac{3}{4}$ miles.

18. *Dabshead Hill Black Dyke.*—Some 1500 yards E.N.E. of Longcroft in Lauder parish this dyke runs from the head of

* *An Old Berwickshire Town*, p. 252.

Gladescleugh, which descends to the Whalplaw Burn. For some 400 yards it continues S.S.E., being cut across by the Herring Road, and is lost near the head of the Trow Burn. This burn descends to the Earnscliffe Water, on the top of the high eastern bank of which, a short distance above the junction of the Trow Burn, the dyke reappears and runs south-east for over $\frac{1}{4}$ mile. It then bends south, running into an abrupt hollow, and is traceable for about 80 yards till it is lost in a bog. Both portions of this dyke are of the traversed trench type, the mound being on the south side of the trench; the measurements are 17 feet in width and 3 feet 9 inches in depth, the traverses being 9 to 15 feet apart. The line of this dyke forms a continuation of the line of Herriots Dyke, running from the above-mentioned bog by way of the Wheel Burn and Blythe Water; but the types of the two dykes are entirely different. The total distance from the Whalplaw Burn to Blythe Water is 3 miles, of which the dyke occupies rather over half a mile.

19. *Clints Black Dyke*.—In Channelkirk parish, about 600 yards west of Clints, a black dyke can be traced running down the slope of Clints Hill for about 600 yards. The lower part of its course is close to the east edge of a gully; here it measures 20 feet across by 3 feet in depth. The higher part runs some 185 yards to the east of the excavated enclosure on the slope of the hill. Running north-east from this dyke, from the point where it passes the excavated enclosure, is a work of uncertain character, used in parts as a pasture drain; it can be traced for about half a mile, passing across the slope about $\frac{1}{4}$ mile above Clints.

Chalmers* records in 1803 “a high earthen rampart and large fosse running off from a British fort on a height near Channel Kirk on the west in a north-east direction, across the highest source of Leader-water for the extent of a mile, and thence eastward through the Lammermoor-hills.” He mentions that it was stated locally to be traceable “at intervals throughout Lammermoor to the neighbourhood of Dunbar.” The description and locality of the first part of this work seem to indicate the rampart of Roy’s Roman Camp, running from Kirktonhill Fort, but this is uncertain.

* *Caledonia*, vol. i, p. 243.

THE HALLS OF HAUGHEAD.

By Rev. JAMES F. LEISHMAN, M.A.

THE Halls of Haughead, cadets of an ancient Border family, Hall of Newbiggen in the parish of Oxnam, first appear on Kale Water early in the seventeenth century. In the judicial records of the kingdom the elder branch of the family figures prominently in the later Border raids. Thus, on 19th April 1623, "Johne Hall, callit the chieff in Newbigging," Lencie Hall, and sixteen others are sentenced to the gallows, their goods and gear to be escheated, while "Adam Hall in Bus," with seven other minor offenders, is, on the same occasion, condemned to be "brunt on ye cheik with ye commone birningirne of ye burghe of Jedburgh."

After their migration to Haughead, the Halls, unskilled perhaps in the arts of peace, fell upon evil days. Their modest estate, in 1643 valued at £200, became heavily burdened and passed into the hands of Archibald Jerdan of Bonjedward in February 1773. Barely half a century later we find another deed of sale, dated 11th June 1811, granted by Archibald Jerdan and Henry Hall, surgeon on board H.M. Gunbrig *Dextrous*, in favour of William Somerville, "Deputy Inspector of Army Hospitals and Physician to the Royal Hospital at Chelsea." In January 1827 Haughead once more went to the hammer, and along with the Eckford barony was absorbed in the Buccleuch estates.

Upon the summit of Haughead Kipp, a sandy wooded knoll, stands a decumbent altar-shaped monument of date 1622, bearing the following inscription :

"Here Hoby Hall boldly maintained his right
Gainst reef plain force armed w. lawless might;
For twenty pleughs, harnessed in all their gear,
Could not this valiant noble heart make fear,
But w. his sword he cut the formost soam
In two : hence drove both pleughs and pleughmen home."

Of this "village Hampden, that, with dauntless breast, the little tyrant of his fields withstood," nothing further is known.

Another "Hobbie" Hall, born at Haughead in 1763, won distinction* as a London physician and a writer on medical matters. Appointed to superintend one of the Niger expeditions, his health gave way. Banished to Madeira, he returned to die of phthisis at Chelsea in 1824. His gifted wife handled a versatile pen. Early in last century she figured as a copious writer, and was well known in London literary and scientific circles.

Haughead is, however, chiefly noteworthy as the home of Henry Hall, the famous Covenanter, the friend and ally of Cargill and of Richard Cameron who was "licensed at the house of Haughead in Teviotdale." Henry Hall, as is well known, was one of the leaders of the Covenanting party, and led the van at Rullion Green, Drumclog, and Bothwell Brig. Taken after Pentland, he lay some time imprisoned in Cessford Castle, but thanks to the connivance of the keeper, his neighbour and kinsman the Earl of Roxburghe, he made good his escape. His after-wanderings in Holland and the north of England, his connection with the *Queensferry Declaration*, his capture and death near Edinburgh, 3rd June 1680, are matters of history.

Several of the chief conventicles were held close to Haughead, the river basin forming here a natural amphitheatre, completely screening them from the outer world. The river-banks, honeycombed with spacious caverns of red sandstone, furnished invaluable hiding-places in the event of sudden surprise.

Henry Hall's son endorsed his father's sentiments in religion and politics. But his grandson, George Hall, as is well known, conformed to the Church of Scotland. After spending eight years as chaplain to the family of Pringle of Torsonce and in the household of the Earl of Haddington, he was presented by Queen Anne, in 1714, to the Crown living of Abbotrule, and later on was promoted to the church of Lintoun in Teviotdale, where he died 2nd October 1728. His "endeavour and design in both parishes" was, he tells us, to "recommend pure, peaceable, and practical Religion without rage or bitterness against any: and to spread the spirit of Christianity, not that of party." †

* Vid. *Dict. Nat. Biog.*, Robert Hall (1763-1824); also Agnes C. Hall (1777-1846).

† Vid. Hall's *Practical Sermons on Several Subjects*, Edinburgh, 1732.

In token of displeasure at his son's taking orders in the National Church, his Cameronian father, on his death-bed, left past him as "unworthy to be the custodier of so precious a relic," the famous "*Haughead Banner*,"* with its truculent motto enwoven in blue and white silk—"No Quarters to ye Active Enemies of ye Covenant." In the marriage register at Berwick appears this entry, doubtless a reference to his mother—"29 August 1661. Henry, son to Robert Hall, late of Haughead, Gent., m. Elizabeth, daughter of Benjamin Clerk."

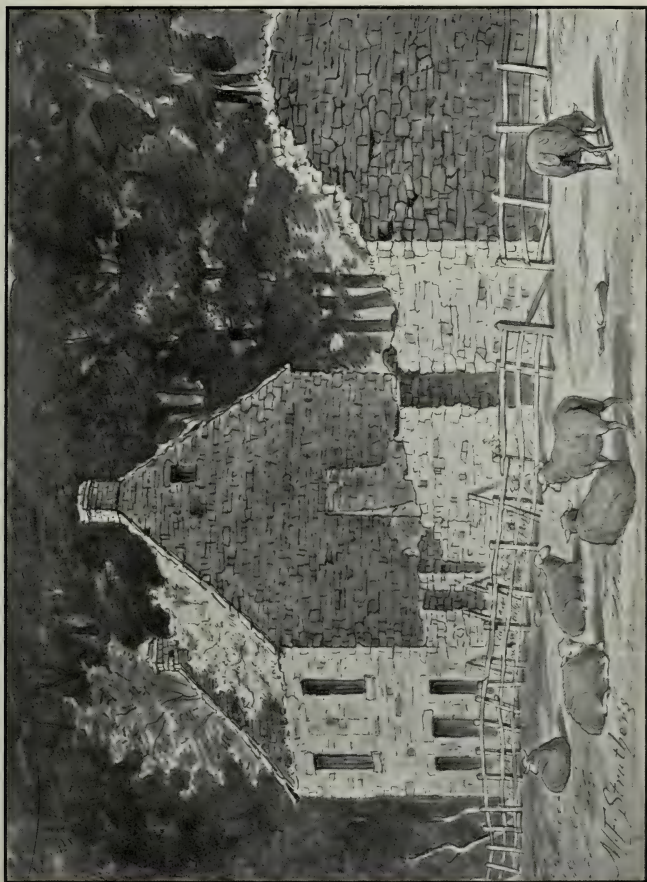
Upon a knoll, within a stone's cast of the mansion-house, stands a circular columbarium, now, alas! untenanted, though furnishing nesting-place for between three and four hundred doves. *Dowcat* rights as a patent of gentility, in ancient days, were jealously guarded by statute. The Haughead *Dowcat* was built possibly under shelter of the Act of 1617, by which the Scots Parliament decreed that no one could erect more than one *duckat* within the bounds of his estate. And then, only if the possessor of "at least 10 chalders victual within two miles."

The old mansion-house still stands picturesquely placed on the brink of Kale Water, scarce half a mile from the spot where Kale meets Teviot.† Above the wide-arched fire-place is a tablet, doubtless set there to commemorate some now forgotten Hall marriage.‡ An aged ash also exists, under which tradition says Henry Hall's children were baptised by the outlawed preachers. The accompanying sketch by a kinsman of the writer was made to gratify a wish of the late Dr Hardy after a visit paid to the spot in June 1879. It was then thatched, and the visitor of to-day must deplore, with him, "the neglect which has permitted the house of Henry Hall, the famous Covenanting laird, to become a ruin."

* This banner, on view at the Glasgow Historical Exhibition in 1911, is still preserved at Greenock, vid. *Proc. Soc. Scot. Ant.*, 1859.

† In the writer's childhood a witty toast ran: "Here's to the river that takes its *Ale* before its *Kale* and kisses *Anna* at the mouth."

‡ The lettering is: H ? June . S.A.H 1740.



RUINS OF HAUGHEAD HOUSE.

From drawing by Matthew Fleming Struthers, Esq.



REPORT OF MEETING OF THE BRITISH ASSOCIATION FOR THE ADVANCE- MENT OF SCIENCE. GLASGOW, 1928.

By JOHN BISHOP.

AT our annual meeting last year, our old and highly esteemed member and ex-President, Mr Butler, was appointed to represent the Club at the British Association meeting held this year in Glasgow. Mr Butler's wide experience, fine geniality and culture, and his deep interest in Science, fit him in a singularly high degree to act as our representative on such an occasion, and I am sure we all regret very deeply that, owing to the state of his health, he was unable to fulfil the duty.

Having had the honour of being requested by the Secretary to go in Mr Butler's stead, I considered it my duty to comply, and I have pleasure in submitting herewith a few brief notes and observations.

I may remark at the outset that, according to the testimony of many old members of the Association, the meeting was one of the most successful ever held.

It was a great convenience—especially to those who do not confine their attention to one section, but like to hear something of the results attained in various branches of scientific research—to have all the sections accommodated within one great building, or rather suite of buildings comprising the magnificent University of Glasgow.

One notable feature of this year's meeting was the number of women who took an active and prominent part in the discussion and in the reading of papers. When the British Association was first founded not only were women lecturers unthought of, but women themselves were debarred even from appearing in the audience.

The President of the Botanical section this year was a lady—

Professor Dame Helen Gwynne-Vaughan, who discoursed learnedly and with expert knowledge upon the subject of "Sex and Nutrition in the Fungi."

In the Geological section, Dr Gertrude Ellis dealt with the problems of Highland Scenery, a subject on which she possesses a wide knowledge.

Other highly esteemed speakers were Dr Marion Newbigin of Edinburgh, Editor of the *Scottish Geographical Magazine*; and Miss Garrod, a lady anthropologist, who has done much valuable work in connection with the British School of Archæology in Jerusalem. The names of many other ladies appeared in the programme as contributors of original papers or participants in discussions on different scientific subjects.

The inaugural meeting on the evening of 5th September was a great and impressive function. The large and commodious St Andrew's Hall was filled to its utmost capacity by a vast concourse of people, who listened with keenest interest as the President, Sir William Bragg, Director of the Royal Institution at London, discoursed in a lucid and interesting manner on the subject of "Craftsmanship and Science"; craftsmanship being defined as "the skill which is exercised in the production of whatever is wanted for human welfare." The evolution of the modern from the ancient craftsmanship and the influence of science in enormously increasing its efficiency and power were fully and finely described. As Sir William Bragg observed, "in the last few years scientific enquiry has advanced at a rate which to all is amazing and to some even alarming, and the application of science to industry has become increasingly important and obvious."

A former President of the Association once declared that "when presented rightly to the mind, the discoveries and generalisations of modern science constitute a poem more sublime than has ever yet been addressed to the human imagination"; and to the student of a less practical turn of mind, interested in science for its own sake, and finding in it a source of æsthetic and intellectual enjoyment, this latter and to him perhaps higher aspect of the subject might seem in the present address to have been rather insufficiently recognised. Nevertheless, considering its obvious aim and purpose, it must be pronounced admirable, and the attention given to it and

the burst of applause which followed its termination proved how deeply it had been appreciated.

Another crowded and apparently greatly interested audience was that which assembled at one of the Evening Lectures, to hear Professor Donan discourse on "The Mystery of Life." In this lecture some account was given of the results attained by an English physiologist, Professor A. V. Hill, during his researches into the phenomena presented by the living cell. This cell—a tiny speck of jelly-like protoplasm—which forms the starting-point of the living organism, and by the multiplication and modification of which all the tissues of the higher forms are built up, apparently holds within itself the Secret of Life, and has been shown—in recent years—to possess a remarkable structure and to exhibit a series of wonderfully regular and purposelike movements of that structure, especially during the process of cell-division.

Sir Oliver Lodge, speaking at the conclusion of the lecture, emphasised the fact that the mere analysis of the mechanism of life brought us no nearer to a solution of the mystery of life itself. Life in its inmost essence was not mechanism but something which produced and utilised the mechanism. Behind its phenomenal manifestations there existed some power or energy which science could neither analyse nor comprehend.

Briefest mention only can be made of some other items of interest.

In the Anthropological section Dr James Ritchie of Edinburgh gave a very interesting account of some excavations recently carried out in limestone caves in Sutherland, in which numerous remains of animals, some of them now extinct, were found, along with relics of man's handiwork, which seemed to prove the existence in Scotland, during the later stages of the Glacial period, of Palæolithic man. This is said to be the first instance in which definite evidence has been furnished of the presence of man in Scotland during the Palæolithic period.

At another meeting of this section Miss Garrod described some excavations in which she had been engaged in Western Palestine. In the cave explored by her, two archæological levels were found, in the upper of which were human skeletons and implements of a more recent type, while in the lower were obtained implements of the type known as Mousterian and

some scattered fragments of human bone, evidently of Neanderthal man.

In the Geological section, the President, Mr E. B. Bailey, staggered the imagination and made one realise in some degree the vastness of the earth's age and the dread immensities of geological time, when he discoursed on "The Palæozoic Mountain Systems of Europe and America," and told how vast mountain ranges had come into existence and been submerged or denuded into insignificance again, long before our present great mountain masses of the Alps, Himalayas, and Pyrenees had come into being.

Omitting many other matters of great interest and importance, reference may be briefly made in closing to the religious services held in connection with the Association on Sunday.

The official service was held in the Cathedral, where the Rev. Dr Lauchlan MacLean Watt was the preacher, the lessons being read by Sir William Bragg and Principal Sir Donald Macalister.

In Wellington U.F. Church, where Sir Oliver Lodge was the preacher, so great was the crowd that an overflow meeting was held, which Sir Oliver addressed for twenty minutes before entering the church. The addresses of the veteran scientist dealing with "The Object of Life and the Aim of Existence," delivered in a calm and impressive manner and with apparent conviction, were listened to with the most rapt and breathless attention by all present.

HALF A CENTURY OF MERSE WEATHER.

By JAMES HEWAT CRAW.

THE meteorological records kept at West Foulenden from 1873 to 1927 yield some interesting evidence of weather conditions in the Merse.

West Foulenden stands 250 feet above sea-level. It is between five and six miles from the sea, from which it is separated by a protecting ridge to the north-east, some 500 to 700 feet in height. While the rainfall in, or near the foot of, the Lammermoors and in Lauderdale is considerably higher, the West Foulenden records may be taken as representative of the greater part of the Merse.

RAINFALL.*

The average rainfall during fifty-five years was 26·32 inches. The details are as follows :—

	Average.	Daily Average.	Maximum.	Minimum.
January .	1·85	·0597	4·26 (1900)	·28 (1905)
February .	1·68	·0594	4·28 (1900)	·11 (1891)
March .	1·92	·0619	6·03 (1909)	·39 (1924)
April .	1·68	·0560	5·10 (1882)	·10 (1912)
May .	1·98	·0639	6·20 (1926)	·49 (1922)
June .	1·82	·0607	4·80 (1882)	·25 (1925)
July .	2·61	·0842	6·00 (1879)	·50 (1876)
August .	2·97	·0958	6·80 (1877)	·70 (1880)
September .	2·18	·0727	5·08 (1927)	·25 (1895)
October .	2·90	·0936	6·61 (1903)	·30 (1879)
November .	2·45	·0817	5·90 (1878)	·48 (1889)
December .	2·28	·0726	8·60 (1876)	·35 (1905)
	26·32	·0721		

* Charts showing rainfall records at West Foulenden appeared in our *History* in vol. xviii, p. 304, and in vol. xxii, p. 90.

The wettest year was 1877, when 38·10 inches of rain fell, and the highest total for the present century was 37·50 inches recorded in 1916. The driest year was 1898, with 19·24 inches, 1901 being a close second, with 19·33 inches. An examination of the averages of the various months shows an almost gradual increase from April, the driest month, with 1·68 inches, to August, the wettest, with 2·97 inches; there is a subsequent gradual decrease. Exceptions to this gradual movement are found in February, June, and September, which are slightly drier than the months preceding and following them. This is clearly shown in the accompanying Rainfall Chart, which shows the daily averages of the months. The wettest month on record was December 1876, when 8·60 inches of rain fell; the wettest of this century was October 1903, with 6·61 inches. The driest month was April 1912, when only ·10 inches was recorded.

A glance at the chart will show how much wetter is the second half of the year; the fall for the first six months being 10·93 inches, and for the last six months 15·39 inches. In no month does the average daily amount reach one-tenth of an inch.

TEMPERATURE.

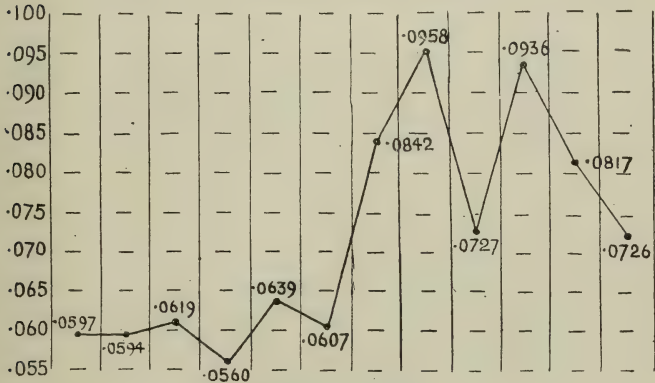
The thermometers were kept in a double-louvred box, five feet above the ground.

The highest reading recorded during fifty-four years (1874 to 1927) was on 1st September 1906, when the mercury rose above 90 degrees. On two occasions it fell to 5 degrees below zero—on 4th December 1879 and on 17th January 1881.

The average monthly maximum and minimum readings, as given in the accompanying chart, show a gradual rise till July is reached and a subsequent gradual fall till January. The maximum and minimum readings for the whole period show a corresponding curve, with the striking exception of the abnormal September reading of 90 degrees above mentioned.

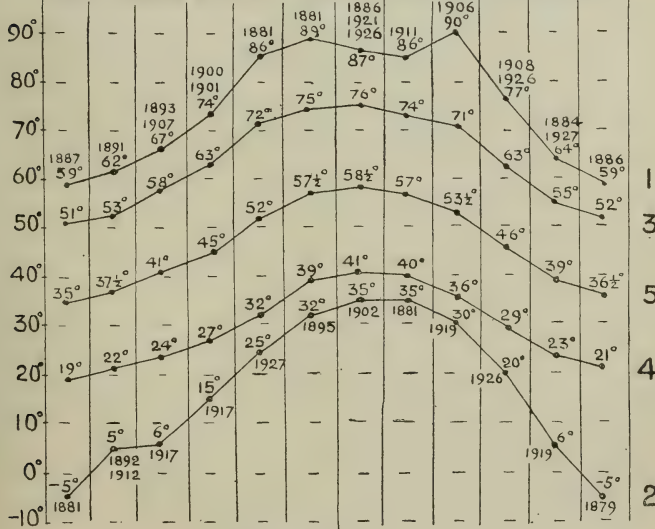
Frost was recorded every year during the months of January, November, and December. Only in July and August was frost never recorded, and only once in June (1895). As the lowest readings during July and August, however, were 35 degrees, the temperature on the ground on these occasions must have been several degrees below freezing-point. This shows that at

JAN. FEB. MAR. APR. MAY JUN. JLY. AUG. SEP. OCT. NOV. DEC.



RAINFALL CHART.

JAN. FEB. MAR. APR. MAY JUN. JLY. AUG. SEP. OCT. NOV. DEC.



TEMPERATURE CHART.

no time throughout the year can the Merse be considered immune from ground frosts at night ; the fact will apply in a greater degree to higher elevations. During the other months frost was registered in February in 53 years out of 54 (1878 being the exception), in March 51 times, in April 53 times, in May 26 times, in September 9 times, and in October 44 times.

TWO HUNDRED YEARS AGO.

INFLUENZA appears to have been as troublesome in 1728 as in 1928. "In the last month [November] and the beginning of this" [December], writes the pious, but garrulous, minister of Eastwood, Renfrewshire, "there was the most general cold and cough, with a fever, seized almost everybody that I ever knew. Not one of fifty escaped. In Glasgow, they say there was no hearing sermon, almost, for some time. It proved deadly to several, and yet very few hereabout died of it. People were seized with it in an instant, and sometimes they raved when on their feet ; and it was not many who were confined to their beds by it. It began first in England, in the country, and it fell very heavily on London. See the prints. It came down here in a fourteenth-night, and went over to Ireland. In short, it run through France, Germany, and Italy, like a plague ; and generally, the better sort were seized with it. It's a mercy it went so soon off."

Wodrow's *Analecta*, vol. iv, p. 97.

OBITUARIES.

GEORGE MUIRHEAD, LL.D.

By GEORGE BOLAM.

By the death of George Muirhead, which took place at his residence, Speybank, Fochabers, on Sunday, 29th January 1928, in his eighty-third year, the Club has lost one of its oldest and most distinguished members, and one who, during his sojourn in our midst, enriched its *History* with many valuable contributions.

Born at Salton, East Lothian, on 15th March 1845, he was the youngest of the family of five sons and three daughters of Alexander Muirhead (*né* 1794, *ob.* 1866) and Margaret Henderson, his wife. This Alexander farmed extensively in East Lothian, but derived from the Muirheads of Lachop, Lanarkshire, a family from which sprang Dr Andrew Muirhead, who was Bishop of Glasgow from 1453 to 1472, and Dr Richard Muirhead, Dean of Glasgow, and Secretary for Scotland in the reign of King James IV.

As a boy the subject of our notice attended the parish school of Salton, then conducted by one of the old-fashioned, scholarly dominies in the person of Mr Halliday (a fellow-student of Thomas Carlyle), and it was there that the foundations were laid of that character and capacity for attention to detail that were to stand him in such good stead throughout his long life. From Salton he went as a boarder to Henderson's Academy at Coldstream, and thence, two or three years later, to the office of James Bowhill, W.S., at Ayton. But the study of law did not prove alluring, and a year or two later he was apprenticed to Mr Robert Craig, factor to Lady Seafield at Glen Urquhart, Inverness-shire, where, besides the acquisition of a sound inception of estate management, his inherent love of Natural History was greatly fostered. A year was subsequently spent at Fenton-

barns studying agriculture under Mr Hope, a past-master in all connected with the farming of arable land; after which he resided with his sisters for about two years at Gifford Vale, devoting himself to floriculture, shooting, fishing, and taxidermy, in all of which he developed a proficiency which endured through life.

About this period, along with one of his brothers, he spent some time in France, and was so enamoured with the country that, as he often told me in after years, he very seriously considered the idea of settling there. One of the attractions was undoubtedly the number of birds new to him that were encountered, and, amongst specimens preserved, one of the most cherished was a fine male Golden Oriole, which still remained in his collection when the latter was bequeathed to Elgin Museum. But the charms of France faded, and, returning home, Muirhead was offered and accepted the position of factor on the estates of Paxton, Billie, Wedderburn, and Milne Graden, and came to reside at Paxton in 1870. There he continued for the next nineteen years, taking over, from time to time, the management of several other properties in Berwickshire, and holding, besides, a Government appointment as Inspector of Improvements on Landed Estates in the counties of Berwick, Roxburgh, Haddington, Peebles, and Selkirk. He thereby enjoyed a unique opportunity of making himself thoroughly acquainted with all the district north of the Border which the Club calls its own, and how well that opportunity was availed could be avouched by all his fellow-members. It is, moreover, testified in part by the two sumptuous volumes on *The Birds of Berwickshire* which he published in 1889 and 1895, a work which, besides its adroit handling of the Ornithology of the county, is replete with poetic quotations, folk-lore, and topography, and is further embellished with no less than 173 illustrations. Most of the latter depict beauty spots in Berwickshire, but many of them are sketches of birds' nests in the grounds at Paxton from the gifted pencil of Mrs Muirhead, and the present writer still retains a vivid recollection of the delight with which the finding of a new nest—the chiffchaff's—was hailed by the artist. The book is altogether a classic memento of idle hours not idly spent that will keep green the name of Muirhead in Berwickshire through the ages.

It was in 1874 that George Muirhead was elected a member of the Club, and for many years he was a very regular attender at its meetings, his vasculum frequently producing interesting exhibits. In his garden at Paxton he had got together an extensive collection of Alpine and other plants, upon which no pains were ever spared that they might be grown to the best possible advantage. A notable example of this was the miniature bog that he had contrived by means of an hydraulic ram, whereon bloomed *Primula minima*, *Gentiana bavarica*, and other lovers of peat and silver sand ; and the pride with which these and other rarities were exhibited at congenial gatherings must still be within the recollection of a few old friends besides the writer. Alas ! that the lapse of time should have so sadly reduced their number. Muirhead was also a keen and successful grower and grafter of apples and other fruit trees, a craft which was prosecuted with increased ardour at Speybank after his return from Canada in 1897. He was likewise a contemplative fisherman, whose delight lay as much in studying as in capturing his quarry, and it was on Tweedside that the nucleus was laid of those experiments with the *Salmonidæ* that afterwards grew to such importance in the ampler opportunities afforded by his residence on the Spey. It was at Paxton, too, that his essays in the continuous growing of cereals on the same land were so zealously pursued, and so much appreciated that the Highland and Agricultural Society awarded him their gold medal. His considerable collection of stuffed birds—most of them set up by his own hand, a few by that of the writer—was also largely added to during his domicile at Paxton ; while amongst the trophies which bedecked the walls of his sanctum was a notable Yellow Trout, 22 inches long, and which weighed 4 lb. 2 oz., that took his fly one evening in July 1874 on the Whitadder below Edrington Mill.

But, despite his busy life in Berwickshire, George Muirhead's heart had been in the Highlands ever since his sojourn in Glen Urquhart, and it was with supreme satisfaction that, in 1889, he removed to Haddo on his appointment to the factorship of the Earl of Aberdeen's estates in that county. A still greater joy it must have been to him when, in July 1897, he became Commissioner to the Duke of Richmond and Gordon, and took up his residence amidst the delightful surroundings of Speyside.

The Duke's estates extended to over 275,000 acres in the counties of Moray, Banff, Aberdeen, and Inverness, and embraced such paradises to a naturalist as Glen More and the Forest of Rothiemurchus, as well as much of the district rendered classic by the writings of Charles St John, always one of his favourite authors. Muirhead continued to hold that appointment until within three months of his death, and only resigned it owing to increasing years.

In 1888 he became a Fellow of the Royal Society of Edinburgh, and was likewise a Fellow of the Society of Antiquaries of Scotland, of the Botanical Society of Edinburgh, and the Zoological Society of London; a Member of the British Ornithologist's Union, of the Royal Meteorological Society, and of the Moray Field Club; and to the publications of several of these he was an occasional contributor. He was a Justice of the Peace and a County Councillor for Morayshire, and filled, besides, several other public offices. He was called as an expert to give evidence in London before the Royal Commissions on Agriculture in 1881 and 1894 and before the Royal Commission on Salmon Fishings in 1900. In 1925, in recognition of his scientific attainments, the University of Aberdeen conferred upon him the honorary degree of Doctor of Laws. In 1897 he made an extended tour through Canada and part of the United States of America, visiting, at the invitation of Lord Aberdeen, then Governor-General of Canada, the Government experimental farms and gardens, where, with his accustomed perspicuity, he picked up several hints in pomiculture.

Dr Muirhead was twice married. First, in 1879, to Agnes Grieve, daughter of John Clay of Kerchesters, by whom he had three sons, all of whom settled in America; and secondly, in 1907, to the Hon. Katherine Forbes-Sempill, eldest daughter of Lord Sempill, seventeenth Baron of Fintray and Craigievar, who survives him. He was buried in the churchyard of Bellie, the service at the graveside being taken by Bishop Robberds of Brechin Cathedral, Primus of the Church in Scotland (a cousin of his second wife), who had officiated at their wedding just twenty-one years earlier.

CONTRIBUTIONS BY DR MUIRHEAD TO THE CLUB'S HISTORY.

On the appearance of the Common Crossbill at Paxton, in the Parish of Hutton, 1873, vol. vii, p. 107.

On the Birds in the Neighbourhood of Paxton, 1875, vol. vii, pp. 379-395.

Notes on Birds (at Paxton), 1876, vol. viii, pp. 178-180.

Additional Notes on Birds in the Neighbourhood of Paxton, 1878, vol. viii, pp. 503-509.

Report on the Damage to Trees, Shrubs, and Plants at Paxton House, in the Parish of Hutton, Berwickshire, by the severe frost in the months of December 1878 and January 1879, vol. ix, pp. 136-138.

On the Death of Le Sieur de la Beauté and the site of his Grave, with two plans, vol. xii, pp. 102-113.

THE LATE HENRY RUTHERFURD OF THAT ILK.

By Sir GEORGE DOUGLAS, Bart.

WRITING as a member of well over fifty years' standing, I take it on me to doubt if any member of the Club who has died within my time has been more truly missed than the late Henry Rutherford, of Fairnington, who died on 27th September last, at the great age of ninety-seven years and eight months. His long membership and faithfulness in attending the meetings would no doubt go some way to account for this. But the true cause of his much more than popularity is to be sought in the happy placidity of his temper, his genial friendliness and high-bred courtesy, and other high qualities of character. He was born in France, the eldest son of the rightful heir of the Edgerston estate. That most beautiful of Border patrimonies never descended to his father. Yet, throughout the more than fifty years of my acquaintance with the son, I never once heard him utter a word of complaint of the gross injustice of which he was the victim. Let me imitate his manly reticence, merely saying that, doomed to be a poor man throughout life, he bowed to his lot and applied himself with unremitted conscientiousness to the discharge of such duties as remained to him. To say less than this would be, I feel, to miss the lesson of an admirable life. Others might shirk the business, often trivial, tedious, and unnecessarily obstructed and prolonged, of local Board and Heritors' meetings. It was never so with

Mr Rutherford, who was ever ready to place his valuable legal knowledge, his sound judgment and fine temper at the disposal of his neighbours, without regard to the indifference with which such service is too frequently requested. On the other hand, his great and unfailing consideration for others wholly neutralised in him that "fine impatience" which is such a help towards getting things done.

Educated at King's College, London, and at the Universities of Edinburgh and Glasgow, Mr Rutherford was called to the English Bar, and joined, I believe, successively, the Eastern and Midland Circuits. His appearances in the Courts were, however, not very frequent, and he eventually settled down as a Revising Barrister for Leicestershire, a position which he held for a number of years. During this period his home was in London, where he was elected a member of the Athenæum Club. But he kept consistently in touch with Roxburghshire, where his most congenial interests lay, and, after the death of his mother, he finally settled at Fairnington Craigs, a comfortable *cottage orné* which he had built on a corner of his ancestral estate, of which the fine old mansion-house was let throughout his ownership to a succession of agricultural tenants. The estate, excepting the Craigs, was sold during the progress of the Great War.

At Fairnington Craigs, as already indicated, he devoted himself with exemplary gusto to county interests. Thus he was for long the right-hand man of the Hon. Arthur Elliot, Liberal Member for Roxburghshire, continuing so until they both found salvation as Unionists at the time of Gladstone's first Home Rule Bill. As a political speaker he was invariably well-informed, painstaking and urbane, though perhaps somewhat lacking in those stirring and driving qualities which were about that time beginning to be looked for even in outlying agricultural constituencies. As an after-dinner speaker at the Dinners of the Edinburgh Border Counties Association and the Jed-Forest Club (when speeches were allowed there) he secured a more entire success, nor, personally, can I recall any speaker of my own time who was so invariably, or so deservedly, listened to with sympathetic appreciation and respect. His hold over his brother Borderers became, as the years went on, very marked indeed to anyone who had eyes to discern such things, though

his attractive modesty of demeanour served to conceal this from such hearers as delight in sound and show rather than in sense and sincerity. Henry was before everything a gentleman, perhaps I should say a gentleman of the Old School, and his methods were invariably the methods of that class. As member of the Berwickshire Naturalists' Club he was less of an expert in any one subject than one who took an intelligent and by no means uninformed interest in all. It is as he appeared in his latest years that he dwells best in the memory, though I believe there are still a few survivors who remember him as "young Mr Rutherford." Then he would willingly relate to interested and inquiring visitors the story of the Rutherford duel, or the history of that member of his family who had been a prisoner with the Red Indians, and whose adventures may possibly have supplied material to Smollett for the character of his Lieutenant; or he would exhibit the costly relics acquired by his kinsman, Baron Rutherford (a Baron of the Russian Empire), as marks of the favour of the Empress Catherine the Second. Mr Rutherford, who was blessed with an exceptionally good constitution, retained his faculties in excellent preservation until within a short time of his death. Even at the age of ninety-seven he was in no sense laid aside or superannuated, but continued, so far as he could, to live with the life of the neighbourhood and to take a genial interest in all that went on round about him. Among old persons there are many who are more than half forgotten ere they die. With Henry Rutherford, I believe that it will be the other way, and that he will be clearly and affectionately remembered long after he is gone.

One moral of his admirable life might perhaps be expressed as follows: "Keep going whilst you can." So far as I am aware, the one book for which he was responsible was an ably compiled Blue Book on Agricultural Labour in Scotland. Finally, he had a good mastery of the French language, acquired in early life, and his accent was unimpeachable.

Mr Rutherford was President of the Berwickshire Naturalists' Club in 1907.

REV. R. C. INGLIS.

A LONG and intimate association with the Berwickshire Naturalists' Club was severed by the death at Kirkcaldy, on 22nd June 1928, of the Rev. R. C. Inglis. A native of Kirkcaldy, where he was born in January 1849, Mr Inglis studied at Edinburgh and Leipzig, and on 30th December 1875 was ordained minister of the United Presbyterian congregation at Berwick-on-Tweed. Retiring in the summer of 1917 to spend the evening of life in the place of his birth, he was a familiar figure in the Border town for forty-two years. Intensely interested in the spiritual welfare of his flock, Mr Inglis had also a grasp of business detail that made his advice most valuable to his fellow-Presbyters. On at least one occasion he was the recipient of a tempting call to another charge, but the tie between minister and people was difficult to sever, and he remained true to his first charge. He was predeceased by his wife and leaves two sons. Mr Inglis joined the Berwickshire Naturalists' Club in 1897 and was President in 1916.

HOWARD PEASE, M.A., F.S.A., OF OTTERBURN
TOWER.

By R. C. BOSANQUET.

HOWARD PEASE, who died on 25th January 1928, had been a member of our Club for twenty-five years and filled the office of President in 1913-14. A man of wide interests and overflowing vitality, accustomed to give his best wherever he went, he brought to our meetings an ardent love of the Border country, a mind stored with its history and legend, and a more precious gift, the power of communicating to others his vision of the past as something real and living.

He was born on 12th July 1863, the elder son of John William Pease of Pendower, Newcastle-upon-Tyne, and Helen Maria, daughter of Alfred Fox of Falmouth. Coming on both sides of high-minded Quaker stock, he inherited an instinctive readiness for public duty which was deepened by education at Clifton and Balliol College, Oxford. A natural skill in games gained

him a place in the Rugby fifteen of his school and college, and the university golf and lawn-tennis teams.

After taking his degree with Honours in Classics, he entered the private bank at Newcastle in which his father had been a partner since its foundation. In 1887 he married Margaret, second daughter of the Rev. Herbert Kynaston, D.D., headmaster of Cheltenham and afterwards Canon residentiary of Durham. They lived at Elswick on the Tyne and afterwards at Arcot Hall near Cramlington, and in the intervals of a strenuous business life Howard Pease acquired the intimate knowledge of life and speech on Tyneside and in the mining villages that gives colour to some of his Northumbrian stories. His work, which included visits of inspection to outlying branches, as well as his love of sport, took him to all parts of the county and enabled him to collect the materials—character, customs, folklore—that he wove into his later historical romances.

After twenty years at the bank, he was able in 1905 to put off the harness of regular work and settle at Otterburn Tower among those “changeless and unharvested moorlands” of which he wrote with undiminished rapture only a few months before his death. His delight in the wild countryside was enhanced by the associations of the house itself, built round a pele-tower that withstood the Scots on the night before the battle of Otterburn in 1388, and by the feudal survivals that linked his estate with the ancient lordship of Redesdale. There he led a full and unselfish life, never allowing his deafness, the result of a mishap at football in his schooldays, to debar him from public work or social intercourse. He served on many public bodies and committees, and was the hard-working treasurer of various associations and funds. In 1913 he was high sheriff of Northumberland. About that time he helped to form a Northumbrian Corps of Guides, and organised the famous cross-country ride from Kielder to Warkworth, when he and three other relays covered fifty miles in four hours twenty-seven minutes. He succeeded Colonel, now General, Sir Loftus Bates as Chief Guide on the outbreak of war. During the years that followed he drove his own motor-ambulance in France and at home, undertook a multitude of local duties, and further taxed his strength by managing the finance of institutions whose treasurers were at the front.

Love of Northumberland possessed him like a religion and tinged all his writings. But he had travelled widely. When excavation began at Sparta in 1906 he made a long journey to see the new discoveries; classical memories came back, and his imagination was soon busy with the frontier between Arcadia and Laconia, deciding in which pool of Eurotas the Spartan boys bathed and how they were trained for war. He fished in Norway and the Bahamas, shot big game in East Africa, and tried most forms of sport. The kind he loved best was fox-hunting as it has been practised from time immemorial among the Border hills, and though he came to it late he held his own with an endurance and daring that younger men might envy. He formed friendships with people of all sorts, learned and unlearned, young and old. Many members of the Club will remember with what enthusiasm he guided them through Redesdale in 1914 and again in 1925, and with what kindness he and Mrs Pease welcomed them at Otterburn Tower. There was much to see: the Roman altars beside the porch, the medieval well, Shakespeare folios and other rare books in the library, and the sheltered garden with its magical blending of colours. The peace and happiness of that home never made him a recluse. He would travel any distance to hunt or fish, to tramp the hills with naturalists or antiquaries, or to lecture in some village hall. Few men have found enjoyment in so many aspects of life or shared it so freely with others.

His wife survives him, together with a son and two daughters. Their younger son fell in the war.

He contributed to our *Proceedings* three papers: "The History and Romance of One's Own Countryside" (Anniversary Address, 1914), vol. xxii, pp. 159-174; "Northumberland Moorland Crosses," vol. xxiv, pp. 319-322; "The First Hegira of the Lindisfarne Monks with the Body of St Cuthbert," vol. xxv, pp. 456-462.

His historical writings include three books: *The Lord Wardens of the Marches of England and Scotland* (1913); *The History of the Northumberland Yeomanry, 1879-1919* (1924); and *Northumbria's Decameron* (1927); besides a paper in *Archæologia Eliana*, 3rd series, vol. xxi, pp. 121-131, "Otterburn, the Tower, Hall and Dene, and the Lordship or Manor of Redesdale."

He published the following volumes of short stories: *Border-*

land Studies (1893), *The Mark o' the Deil* (1894), *The Whitefaced Priest* (1896), *Tales of Northumbria* (1899), *Border Ghost Stories* (1909). In 1904 he began a trilogy of romantic novels with *Magnus Sinclair*, a story of the years 1649-53; then came *Of Mistress Eve* (1906), dealing with 1653-63; and *The Burning Cresset* (1908), a story of 1715. *With the Warden of the Marches* followed in 1909, and *The Tragedy of Holyrood* in 1910. He edited *The Northern Counties Magazine* (1900-1), and contributed articles to *The National Observer*, *Spectator*, *Country Life*, and other periodicals.

THREE HUNDRED YEARS AGO.

FOR members who took part in the June meeting, even a minor incident in the stirring history of the Bass Rock will have a special interest. From the Privy Council Records, we learn that, in 1628, George Lauder and his mother, "Dame Isobel Hepburn Lady Bass," were "standing at the horn at the instance of divers of their creditors." Yet, notwithstanding the straits to which they were reduced, "they peaceably bruik and enjoy some of their rents, and remain within the craig of the Bass, presuming to keep and maintain themselves, so to elude justice and execution of the law." On a threat from the Lords of Council, a friend represented "the hard and desolate estate" of the debtors, and obtained a protection, whereby they were enabled to come to Edinburgh and make arrangements for the settlement of their affairs.

METEOROLOGICAL OBSERVATIONS IN BERWICKSHIRE DURING 1928

Compiled by the Rev. A. E. SWINTON, M.A., F.R.Met.Soc., Swinton House.

METEOROLOGICAL OBSERVATIONS FOR 1928

397

Month.	Temperature.		Days with Tem- perature at or below 32°.	Bright Sunshine.					
	Maximum.	Minimum.		Hours.		Days with Sun.			
				with Sun.	Hours.	with Sun.	Hours.		
January February March April May June July August September October November December	52	52	19	42.7	19	49.0	19	38.6	22
	53	53	23	80.6	23	82.5	24	72.5	26
	54	53	16	46.2	16	43.3	16	48.4	19
	65	70	26	109.5	26	94.3	24	106.1	26
	66	72	28	147.4	28	144.0	25	123.2	28
	73	77	25	167.3	25	144.1	23	138.3	26
	73	74	29	186.3	29	164.2	27	135.9	31
	72	75	29	124.5	29	115.8	28	101.2	30
	68	69	22	130.4	22	120.0	23	93.0	25
	58	62	22	68.9	22	73.7	22	76.4	28
	56	56	21	46.5	21	62.0	22	52.4	22
	52	50	16	41.2	16	54.6	16	34.8	17
Year	73	77	276	1191.5	276	1147.5	269	1020.8	300
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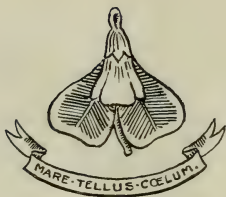
TREASURER'S FINANCIAL STATEMENT FOR YEAR ENDING 30th SEPTEMBER 1928.

RECEIPTS.		PAYMENTS.	
<i>Subscriptions—</i>		Debit Balance from 1927	
401 Members at 10s.	£200 10 0	<i>Printing and Stationery—</i>	
8 Arrears at 10s.	4 0 0	Neill & Co., Edinburgh—	
21 Entrance Fees at 10s.	10 10 0	1927 Proceedings.	£131 3 0
		Field Notices . . .	16 13 6
			£147 16 6
<i>Sale of Club Badges</i>	£215 0 0	Proceedings—	
<i>Extra received from Members to cover Bank</i>	2 18 0	Brown . . .	£4 10 0
<i>Charges . . .</i>	0 1 9	Henderson . . .	3 12 6
<i>Sale of Proceedings . . .</i>	£5 12 9	Thin . . .	0 15 0
<i>Rebate on Proceedings—Brown . . .</i>	1 0 0	Anderson . . .	0 3 6
<i>Interest on Bank Deposit . . .</i>	6 12 9		
<i>Museum Library—sale of shelves . . .</i>	7 14 7	G. C. Grieve . . .	{ 4 1 0
	1 0 0		{ 4 11 10
Debit Balance at 30th September 1928 . . .	10 4 0	<i>Library—</i>	
		Rent . . .	10 0 0
		Thomson & Patterson—new shelves . . .	12 10 0
		Grant & Evans—fittings . . .	4 13 6
		Sundry furnishings . . .	{ £1 17 0
			{ 1 3 1
		Cleaning . . .	3 0 1
		Removal Expenses . . .	1 0 0
			0 13 10
		<i>Clerical Expenses</i>	
		<i>Postages and Officials' Expenses—</i>	
		Secretary . . .	£16 1 2
		Editing Secretary . . .	2 0 0
		Treasurer . . .	3 19 6
		Librarian . . .	0 6 7
		Commission on Cheques, Bank Interest, and Cheque Books . . .	22 7 3
			0 13 2
			£243 11 1

APPROXIMATE BALANCE SHEET.		ASSETS.
LIABILITIES.		
Overdrawn on Current Account at Bank	£10 4 0	
Neill's Estimated Account for 1928 Proceedings	155 0 0	£310 0 0
Approximate Balance in Club's favour at date	144 16 0	
	£310 0 0	£310 0 0

2nd October 1928.—I have examined the above Financial Statement with the books and receipted accounts, and find it correct. The Bank Pass-Book and Deposit Receipt have been exhibited to me.

(Signed)
J. FLEMING, Auditor.



BERWICKSHIRE NATURALISTS' CLUB RULES AND REGULATIONS (REVISED 1925).

(Founded 1831).

MOTTO : " MARE ET TELLUS, ET, QUOD TEGIT OMNIA, CÆLUM."

BADGE : WOOD SORREL.

1. The name of the Club is the Berwickshire Naturalists' Club (see vol. i, p. 3, 1831).
2. The object of the Club is to investigate the natural history and antiquities of Berwickshire and its vicinage (i, 3, 1831).
3. All interested in these objects are eligible for membership (i, 3, 1831).
4. The Club consists of (a) Ordinary Members, (b) Contributing Libraries and Societies, (c) Corresponding Members, eminent men of science whom the Club desires to honour (x, 284, 1883), (d) Honorary Lady Members, and (e) Associate Members, non-paying members who work along with the Club (x, 284, 1883).
5. New members are elected at any meeting of the Club by the unanimous vote of members present, the official forms having been duly completed, and the nominations having been approved by the officials of the Club. New members are entitled to the privileges of membership upon payment of the entrance and membership fees (xxiv, 387, 1922). The names of new members who have not taken up membership within six months of election, and after having received three notices, will be removed from the list. (1925.)

6. The entrance fee is 10s. (v. 184, 1865), and the annual subscription 10s. (xxiv, 215, 1920). These are both due on election. Subsequent subscriptions are due after the annual business meeting, and entitle members to attend the meetings and to receive a copy of the Club's *History* for the ensuing year. (1925.)
7. The number of Ordinary Members is limited to 400. The names of candidates are brought forward in priority of application, power being reserved to the President to nominate independently in special cases, irrespective of the number of members on the Roll (x, 489, 1884).
8. The *History* of the Club is only issued to members who have paid their year's subscription. Names of members who are in arrears for two years will be removed from the list after due notice has been given to them (xi, 401, 1886).
9. The Club shall hold no property (i, 3, 1831), except literature (xx, 53, 1906).
10. The Office-Bearers of the Club are a President, who is nominated annually by the retiring President; a Secretary, an Editing Secretary, a Treasurer, and a Librarian, who are elected at the annual business meeting. (1925.)
11. Expenses incurred by the Office-Bearers are refunded. The Secretary's expenses, both in organising and attending the meetings of the Club, may be defrayed out of the funds (xxi, 61, 1909).
12. Five monthly meetings are held from May till September (i, 3, 1831). The annual business meeting is held in the beginning of October. Extra meetings for special purposes may be arranged. (1925.)
13. Notices of meetings are issued to members at least eight days in advance (i, 3, 1831).
14. Members may bring guests to the meetings, but the notices of meeting are not transferable. (1925.)
15. Members attending meetings shall hand their cards to the Secretary in order that the Reports may contain a full list of members present. Members may write the names of their guests on the cards. (1925.)

16. At Field Meetings no paper or other refuse may be left on the ground. All gates passed through must be left closed. (1925.)
17. Members omitting to book seats for meals or drives beforehand must wait till those having done so are accommodated. (1925.)
18. The price of the *History*, to members, is 3s. 6d. per part up to 1920 and 6s. to non-members; and from 1921, to members (additional copies) 6s., to non-members 10s. (xxiv, 290, 1921).
19. Contributors of papers to the *History* receive twenty-five overprints of their papers (xxiv, 38, 1919, amended 1925).

THE LIBRARY.

The Library of the Club is in the Museum Buildings, Berwick. It contains a complete set of the Club's *History*, the publications of sister Societies, and other local and scientific literature. The keys may be had from Ralph Dodds & Son, Ltd., 19 High Street.

"RULE FIRST AND LAST

Every member must bring with him good humour, good behaviour, and a good wish to oblige. This rule cannot be broken by any member without the unanimous consent of the Club" (1849), *Correspondence of Dr George Johnston*, p. 414 (Founder and first President of the Club).

BERWICKSHIRE NATURALISTS' CLUB.

LIST OF MEMBERS, 30th September 1928.

Those marked with an Asterisk are Ex-Presidents.

	Date of Admission.
*Aiken, Rev. J. J. M. L. ; M.A., B.D. ; Ayton	1888
Aitchison, Mrs Barbara Hewat ; Lochton, Coldstream	1919
Allan, John ; M.A., F.S.A. ; British Museum, London, W.C.1	1920
Allgood, Capt. G. H. ; Nunwick, Humshaugh, Northumberland	1917
Allhusen, Mrs K. R. ; Beadnell Tower, Chathill	1923
Anderson, Mrs Helen I. ; 3 Williambank, Earlston	1923
Angus, W. ; Record Office, General Register House, Edinburgh	1910
Archer, Joseph E. ; Eastacres, Alnwick	1920
Arkless, Rev. E. ; L. Th. ; Warkworth Vicarage, Northumberland	1896
Askew, David H. W. ; Castle Hills, Berwick	1908
Baillie, John ; British Linen Bank House, Duns	1925
Baillie, Mrs Meta ; Harleyburn, Melrose	1924
Baillie, Simon E. H. ; do. do.	1924
Baird, Major W. A. ; Wedderlie, Gordon	1921
Balmbra, John ; St Michael's Place, Alnwick	1914
Bayley, Isaac Fenton ; Halls, Dunbar	1919
Bell, John Patrick Fair ; F.R.S.E. ; Springbank Villa, Ayton	1926
Bell, Mrs M. L. ; Northfield, St Abbs	1922
Bell, Robert B. ; do. do.	1923
Bell, Rev. Wm. Napier ; M.M. ; 37 Oakfield Avenue, Glasgow	1914
Biddulph, Lady ; The Pavilion, Melrose	1926
Bishop, Lieut.-Col. C. F. ; Roxburgh House, Kelso	1924
Bishop, Mrs ; do. do.	1924
Bishop, John ; 1 Summerhill Terrace, Berwick	1918
Bishop, Mrs John ; do. do.	1925
Blackadder, John Wm. ; Ninewells Mains, Chirnside	1906
Black, Miss Mary Helen ; The Warden, Coldingham	1925
Blair, Charles H. H. ; M.A. ; F.S.A. ; 57 Highbury, Newcastle-on-Tyne	1918
Bolam, Wm. J. ; Commercial Bank, Berwick	1905
*Bosanquet, Robert Carr ; Rock Moor, Alnwick	1887

	Date of Admission.
Bowhill, James Wm. ; C.A. ; 22 St Andrew Square, Edinburgh	1898
Boyd, Miss Jessie B. ; Faldonside, Melrose	1905
Boyd, John Stewart ; J.P. ; The Cottage, Bongate, Jedburgh	1917
Brewis, Edward ; C.A. ; Prior Hill House, Berwick	1921
Brewis, Parker ; F.S.A. ; Glenbrae, Jesmond Park W., Newcastle-on-Tyne	1922
Briggs, Capt. Leonard Scott ; Melkington, Cornhill	1925
Briggs, Mrs ; do. do.	1925
Bromby, Miss Fanny ; 119 High Street, Berwick-upon-Tweed	1927
Brown, Miss Agnes B. ; Crofthill, Chirnside	1921
Brown, Cecil Jermyn ; Buccleuch House, Melrose	1925
Brown, John ; Southcotes, Berwick	1925
Brownlie, Mrs ; Haughead, Earlston	1922
Bruce, Robert ; Thirlestane, Lauder	1923
*Buchan-Hepburn, Sir A. ; Bart. ; Smeaton-Hepburn, Prestonkirk	1876
*Butler, George Grey ; M.A. ; F.G.S. ; Ewart Park, Wooler	1894
Byers, John ; 9 West Lawn, Sunderland	1924
Bywater, Miss Mary ; Innescoe, Roxburgh	1928
Cairns, John ; Carlyle House, Stott Street, Alnwick	1889
Calder, Mrs Mary A. H. ; Marigold, Chirnside	1923
Cameron, Miss Amelia N. ; Trinity, Duns	1907
Cameron, Miss Elizabeth W. ; do. do.	1912
Carmichael, Robert ; Rosybank, Coldstream	1890
Carr, Joseph Wm. ; Homecroft, Horncliffe, Berwick	1926
Carr, Miss Eleanor M. ; do. do.	1928
Carr, Robert ; The Elms, Berwick-on-Tweed	1890
Carter, John G. ; Easter Street, Duns	1923
Caverhill, Miss H. F. M. ; 2 Ravensdowne, Berwick	1923
Caverhill, Mrs Maria M. ; The Loaning, Reston	1923
Caverhill, Wm. Renwick ; Crichness, Duns	1925
Clark, Miss Gertrude ; Hillside, Lothianburn, Edinburgh	1916
Clark, James ; M.A., D.Sc., A.R.G.S. ; 28 London Road, Kilmarnock	1928
Clark, Wm. Donald ; West Ord, Berwick	1926
Clay, Miss Emily ; Tillmouth, Cornhill-on-Tweed	1927
Clendinnen, Charles Elliot ; Oaklands, Kelso	1917
Clendinnen, Mrs ; do. do.	1925
Clendinnen, Miss I. J. ; B.A. ; do. do.	1925
Clennell, Miss Amy Fenwicke ; Barmoor House, Lowick, Berwick	1925
Clennell, Miss Constance M. Fenwicke ; do. do.	1925
Cockburn, J. W. ; Chapelhill, Cockburnspath	1925
Collingwood, John C. ; Cornhill House, Cornhill-on-Tweed	1902
Colt, Ronald S. H. ; B.A. ; 13 Regent Terrace, Edinburgh	1921
Cowan, Francis ; C.A. ; Westerlea, Ellersley Road, Edinburgh	1918
Cowan, Mrs Jane E. F., Lowriewell Cottage, Yetholm, by Kelso	1915
Cowe, Robert Crowe ; Butterdean, Grantshouse	1920
Cowe, Robert Peter ; Whiteburn, Grantshouse	1920
Craigs, Robert ; Cateleugh, Otterburn, Newcastle-on-Tyne	1925

Date of
Admission.

*Craw, J. H. ; F.S.A. Scot ; 5 Merchiston Gardens, Edinburgh	1900
Craw, John Taylor ; Whitsome Hill, Chirnside	1902
Crawford, P. ; Ladykirk Estate Office, Norham-on-Tweed	1924
Cresswell, Mrs ; Hauxley Hall, Amble, Northumberland	1923
Croal, Mrs ; Thornton, Berwick	1928
Crockett, Rev. W. S. ; D.D. ; The Manse, Tweedsmuir	1916
Culley, Mrs Leather ; 18 Milner St., Cadogan Square, London, S.W. 3	1927
Curle, Frederick R. N. ; Greenyards, Melrose	1904
*Curle, James, LL.D., F.S.A. ; Priorwood, Melrose	1893
Currie, Wm. ; Millbank, Grange Loan, Edinburgh	1901
Darling, Adam D. ; Rock Cottage, Bamburgh	1923
Darling, Alex. ; Governor's House, Berwick-on-Tweed	1900
Darling, Mrs Margaret ; Priestlaw, Duns	1925
Darling, Thomas ; F.C.S. ; Marshall Meadows, Berwick-on-Tweed	1878
Davidson, Lieut.-Col. J. ; M.A., M.D., D.S.O., I.M.S. ; The Rest, Broomieknowe, Lasswade, Midlothian	1923
Davidson, Capt. George ; Galagate House, Norham	1924
Deans, John H. ; Pitcox, Dunbar	1923
Dey, Alex. ; M.B., C.M. ; Wooler	1909
Dickinson, Wm. B. ; Longcroft, Oxtou, Berwickshire	1924
Dickson, A. H. D. ; C.A. ; 36a Dryden Chambers, Oxford Street, London, W.1	1925
Dixon, Wm. John ; Marlborough House, Spittal	1919
Dodds, Ralph Herbert ; M.C. ; Avenue House, Berwick	1903
*Douglas, Sir George Brisbane ; Bart. ; Springwood Park, Kelso	1876
Douglas, Rev. J. L. ; Manse of Eccles, Greenlaw	1928
Douglas, Wm. ; 9 Castle Street, Edinburgh	1921
Douglas, Wm. Sholto ; Mainhouse, Kelso	1922
Douglas, Mrs W. S. ; do. do.	1925
Duncan, John Bishop ; 6 Summerhill Terrace, Berwick	1923
Easton, Wm. R. ; Summerside, Jedburgh	1923
Elliot, Stuart Douglas ; S.S.C. ; 22 York Place, Edinburgh	1894
Elliot, Wm. Marshall ; High Street, Coldstream	1909
Erskine, Mrs Biber ; Mew Mains, Dryburgh, St Boswells	1924
Erskine, Mrs Margaret B. ; Bonkyl Lodge, Duns	1924
Erskine, Mrs Margaret C. ; The Anchorage, Melrose	1907
*Evans, Arthur H. ; Sc.D., F.Z.S. ; Cheviot House, Crowthorne, Berks	1875
Falconer, Allan A. ; Elder Bank, Duns	1921
Falconer, Mrs Agnes W. ; Auchencrow Mains, Reston	1925
Fenning, Rev. S. E. R. ; M.C. ; St Mary's Vicarage, Berwick- upon-Tweed	1928
Ferguson, Mrs ; Carolside, Earlstoun	1923
Fleming, Mrs ; British Linen Bank House, Berwick-upon-Tweed	1927
Fleming, Miss Marjorie ; Hempsford, Kelso	1921

	Date of Admission.
Fortune, Wm. ; Elmbank, Ayton	1920
Fraser, Rev. D. D. ; M.A. ; The Manse, Sprouston, Roxburghshire	1922
Fraser, William ; 212 Causewayside, Edinburgh	1928
Fulton, James ; Hope Park, Coldstream	1921
Garden, Alex. Morrison ; 9 North Terrace, Berwick	1922
Gibb, Miss Margaret L. Shirra ; The Roan, Lauder	1921
Gibson, Gideon J. ; Craigour, Gullane	1903
Gibson, Thomas ; J.P. ; 7 Glengyle Terrace, Edinburgh	1911
Gladstone, T. H. ; The Cloisters, 12 Ravensdowne, Berwick	1924
Glegg, Andrew H. ; W.S. ; Maines, Chirnside	1924
Gowland, Thomas ; Pencraig, Melrose	1922
Grainger, Capt. H. H. Liddell ; Ayton Castle, Berwickshire	1922
Gray, Miss Mary ; 7 Marygate, Berwick	1923
Gray, Miss Mary ; 4 Bankhill, Berwick	1923
Greet, Miss Constance H. ; Birch Hill, Norham-on-Tweed	1907
Greig, James Lewis ; Advocate, Eccles House, Greenlaw	1898
Greig, Mrs ; Wester Wooden, Roxburgh	1922
*Grey, The Rt. Hon. Viscount, of Fallodon ; Alnwick	1888
Grey, John ; Manor House, Broomhill, Morpeth	1899
Grey, Wm. ; Hide Hill, Berwick	1903
Grieve, Miss Jessie C. ; Anchorage, Lauder	1924
Gunn, P. B. ; South Bank, Bowden, St Boswells	1923
Hall, Wm. T. ; M.D. ; Dunns House, Otterburn, Northumberland	1907
Halliburton, T. Colledge ; Brae Villa, Jedburgh	1920
Hardy, Alexander Whyte ; Harpertoun, Kelso	1921
Hardy, George ; Redheugh, Cockburnspath	1894
Harper, Robert ; Springfield, Dunbar	1911
Hay, Captain Lord Edward ; Purvishall, Greenlaw	1927
Hay, Francis Stewart ; Duns Castle, Duns	1901
Hay, Mrs do. do.	1902
Hay, Henry ; M.B., C.M. ; Gifford Vale, Gifford, East Lothian	1902
Hayward, Miss Ida M. ; F.L.S. ; 7 Abbotsford Road, Galashiels	1924
Herbert, H. B. ; The Cottage, Fallodon, Alnwick	1921
Herriot, James ; Solicitor, Duns	1921
Herriot, Miss Jean ; Silanchia, Norham-on-Tweed	1926
Hilson, James L. ; Kenmore Bank, Jedburgh	1896
Hilson, Oliver ; J.P. ; Croupyett, Ancrum, Roxburghshire	1894
Hodgkin, Mrs Catherine ; Old Ridley, Stocksfield	1923
Hogarth, George Gilroy ; Commercial Bank, Ayton	1922
Hogg, John ; Roselea, Kelso	1925
Hogg, Robert ; Middlethird, Gordon	1923
Hogg, Wm. ; Birkenside, Earlston	1926
Holderness, Mrs Helen M. G. ; Glen Aln, Alnwick	1926
Holmes, Miss Janet M'Callum ; Bridge Street, Berwick	1925
Home, The Rt. Hon. The Earl of ; The Hirsell, Coldstream	1915
Home, David Patrick Milne ; Irvine House, Canonbie	1927

LIST OF MEMBERS

407

	Date of Admission.
Home, Major G. J. N. Logan ; Edrom House, Edrom.	1909
Home, Miss Helen Mary Logan ; do. do.	1927
Home, John Hepburn Milne ; Irvine House, Canonbie	1898
Home, Percy J. ; 43 Gloucester St., Warwick Sq., London, S.W.	1918
Home, Miss Sydney Milne ; The Cottage, Paxton	1924
Hood, James ; Linhead, Cockburnspath	1890
Hood, Miss Betty W. ; do. do.	1926
Hope, Col. Charles ; Cowdenknowes, Earlston	1894
Hope, Miss Mary Isobel ; Wideopen, Morebattle, Kelso	1913
Hoyle, Miss Frances ; Branxton Vicarage, Cornhill-on-Tweed	1928
Hume, Mrs. Ross ; Ninewells, Chirside	1921
Hunter, Edward ; Wentworth, Gosforth	1907
Hunter, Mrs. ; Anton's Hill, Coldstream	1924
*James, Captain Fullarton ; Stobhill, Morpeth	1901
Jardine, Miss E. H. ; Reston House, Reston	1923
Johnson, Mrs Dixon ; Middle Ord House, Berwick-upon-Tweed	1921
Johnson, John Bolam ; C.A. ; 13 York Place, Edinburgh	1918
Johnston, Robert G. ; O.B.E. ; Solicitor ; Duns	1907
Johnston, Robert ; The Crooks, Coldstream	1925
Jones, John R. ; Bongate Villa, Jedburgh	1924
Kerr, Rev. Robert Cranstoun ; M.A. ; North Manse, Kelso	1916
Kinghorn, R. ; F.S.A. Scot. ; Whitsome West Newton, Chirside	1920
Kyle, Robert ; Alngarth, Alnwick	1917
Lake, John Romans ; East Ord, Berwick	1925
Lamont, Rev. H. M. ; B.D. ; The Manse, Coldingham	1901
Leadbetter, Hugh Macpherson ; Knowesouth, Jedburgh	1888
Leadbetter, Thomas Greenshields ; F.S.A. Scot. ; Spital Tower, Denholm, Roxburghshire	1903
*Leather, Colonel G. F. T. ; F.R.G.S. ; Middleton Hall, Belford	1889
Leather, Mrs Margaret Ethel do. do.	1919
Leather, Miss R. M. ; c/o Westminster Bank, Sussex Place, Queen's Gate, London, S.W.	1920
Leishman, Miss Augusta Drevar Fleming ; Linton House, Kelso	1927
*Leishman, Rev. James F. ; M.A. ; Linton Manse, Kelso	1895
Leslie, Rev. David Smith ; Manse, Hutton	1920
Levet, Anthony R. ; Hillside, Wooler	1923
Lewis, Miss Mary Annie ; High Street, Ayton	1925
Lillingston, Com. Hugh W. Innes ; Horncliffe House, Berwick	1925
Lindsay, Mrs ; Prendergust, Ayton	1924
Little, John ; Crotchet Knowe, Galashiels	1921
Little, Mrs Nora ; do. do.	1923
Lockton, Rev. Philip Sidney ; The Parsonage, Melrose	1913
Logan, Mrs Jas. ; Birkhill, Earlston	1922
Lyal, Mrs Clara ; West Mains, Gordon	1925
Lyon, John Wallace ; 2 Devon Terrace, Berwick	1925

	Date of Admission.
Mabon, Wm. Wells ; Crown Lane House, Jedburgh	1920
Mabon, John Thos. ; 48 Castlegate, Jedburgh	1923
M'Callum, Rev. Wm. ; M.A. ; The Manse, Makerstoun, Kelso	1917
*M'Conachie, Rev. Wm. ; D.D. ; Manse, Lauder	1907
M'Conachie, Mrs Ellen M. ; do. do.	1922
M'Creath, Rev. J. F. ; M.A. ; The Manse, Mertoun, St Boswells	1923
M'Creath, Mrs ; do. do.	1923
M'Dougal, Arthur R. ; Blythe, Lauder	1920
MacKay, Lieut.-Col. W. B. ; C.M.G., M.D. ; Castlegate, Berwick	1902
M'Keachie, Rev. Alfred ; M.A. ; The Manse, Chirnside	1923
*M'Whir, James ; M.B., Ch.B. ; Norham-on-Tweed	1904
Maddan, James Gracie ; 5 Park Road, Cheadle Hulme, Stock- port	1922
Marjoribanks, Mrs ; Rowchester, Greenlaw	1924
Marr, James ; M.B., C.M. ; Ivy Lodge, Greenlaw	1898
Marshall, Wm. James ; Northumberland Avenue, Berwick	1904
Martin, Charles Picton ; The Thirlings, Wooler	1925
Martin, Mrs do. do.	1925
Martin, Miss K. A. ; Ord Hill, Berwick	1921
Mather, Joseph Charters ; Arniston Estate Office, Gorebridge, Midlothian	1923
Meade, Mrs ; The Hangingshaw, Selkirk	1925
Meikle, John ; Langrigg, Chirnside	1925
Menzies, Lieut.-Col. Chas. T. ; Kames, Greenlaw	1905
Michael, Mrs Margaret C. ; Baillieknowe, Kelso	1921
Middlemas, Robert ; Barndale House, Alnwick	1898
Middlemas, Mrs Catherine ; Barndale House, Alnwick	1928
Middlemas, R. J. ; B.A. ; do. do.	1928
Middleton, Henry N. ; Lowood, Melrose	1923
Milburne, Sir Leonard J., Bart. ; Guyzance, Acklington	1927
Millar, James ; Solicitor, Duns	1899
Millar, Wm. C. ; 8 North Terrace, Berwick	1924
Miller, Miss Catherine C. ; Wellnage, Duns	1920
Mills, Fred ; Westfield Farm House, Haddington	1916
Mills, George H. ; Swinton Greenriggs, Duns	1924
Molesworth, Col. Wm. ; C.I.E., C.B.E., I.M.S. ; Cruicksfield, Duns	1923
Molesworth, Mrs Winifred Ann ; do. do.	1923
Morse, Archibald Frederick ; 9 Springwood Terrace, Kelso	1923
Muir, Mrs E. M. Temple ; Inchdarnie, St Boswells, Roxburghshire	1923
Muir, Dr John Stewart ; Thorncroft, Selkirk	1925
Napier, George G. ; M.A. ; Strathairly, 22 Braidburn Terrace, Edinburgh	1901
Newbiggin, Leslie ; Percy House, Alnwick	1910
Newbiggin, E. R. ; J.P. ; 4 Tankerville Terrace, Newcastle-upon- Tyne	1928
Newton, Miss Mary J. ; 3 Williambank, Earlston	1923
Northumberland, His Grace the Duke of ; Alnwick Castle	1918

LIST OF MEMBERS

409

Date of
Admission.

Ogg, James E. ; Cockburnspath	1921
Oliver, Andrew Pringle ; Friar's Vale, Jedburgh	1926
Oliver, Mrs Katharine ; Edgerston, Jedburgh	1924
Oliver, Wm. ; Albion House, Jedburgh	1908
Orde, Major Leonard Henry ; Twyford House, Alnmouth	1922
Parsons, The Hon. Lady ; 1 Upper Brook Street, London, W. 1	1914
Pate, Wm. ; Horseupleugh, Longformacus	1928
Pate, Mrs ; do. do.	1928
*Paton, Rev. Henry ; M.A. ; Elmswood, Peebles	1897
Patterson, James ; Castlegate, Berwick-upon-Tweed	1927
*Paul, The Rt. Rev. David ; D.D., LL.D. ; 53 Fountainhall Road, Edinburgh	1870
Pearson, Mrs ; Otterburn, Roxburgh	1921
Petrie, Charles Strachan ; Solicitor, Duns	1920
Piddocke, Rev. M. M. ; Kirknewton Vicarage, Northumberland	1912
Pitt, Miss Amy L. ; Waren House, Belford	1925
*Plummer, Charles H. Scott ; Sunderland Hall, Galashiels	1892
Porteous, A. M., Jun. ; Easterhill, Coldstream	1923
Prentice, Miss Jessie ; Tillknowe, Wooler	1908
Pringle, Mrs Jean G. ; Benrig, St Boswells	1923
Purves, Thomas, Jun. ; 16 Castle Terrace, Berwick	1923
Purvis, Charles E. ; Westacres, Alnwick	1895
Ramsay, Miss E. Lucy ; Stainrigg, Coldstream	1923
Rankin, G. ; W.S. ; Linkwood, Davidson's Mains, Midlothian	1899
Riddell, R. R. ; 4 Quay Walls, Berwick-on-Tweed	1923
Riddell, William Edmeston ; Sanson Seal, Berwick-upon-Tweed	1927
Ridley, Sir Edward ; 48 Lennox Gardens, London, S.W. 1	1876
Ritchie, D. Norman ; The Holmes, St Boswells	1921
Ritchie, Mrs Ishbel Juliet ; do. do.	1926
Ritchie, Rev. J. ; B.D. ; The Manse, Gordon, Berwickshire	1916
Roberson, Rev. Canon H. ; The Vicarage, Norham	1922
Roberson, Mrs ; The Vicarage, Norham	1924
Roberts, Mrs Agnes A. ; Wellwood, Selkirk	1928
Roberts, Alex. F. ; Fairnielee, Galashiels	1884
Robertson, Rev. John ; M.A. ; U.F. Manse, Lauder	1924
Robertson, Wm. ; Stamford, Alnwick	1923
Robson, Captain, The Hon. H. B. ; Lesbury House, Lesbury	1926
Robson-Scott, Miss Marjorie ; Newton, Jedburgh	1918
Rodger, David ; Muircleugh, Lauder	1920
Romanes, C. J. L. ; W.S. ; Norham Lodge, Station Road, Duns	1908
Rose, Rev. Wm. D. O. ; M.A. ; Ayton	1921
Ross, Stewart ; 1 Thistle Court, Edinburgh	1924
Russell, G. A. ; The Crooks, Coldstream	1923
Rutherford, T. ; 6 Bankhill, Berwick-upon-Tweed	1928
*Rutherford, Henry ; Fairnington Craigs, Roxburgh	1883
Rutherford, W. J. ; M.C., M.D. ; 618 Rochdale Road, Manchester	1912

	Date of Admission.
Sanderson, Mrs F. B. ; The White House, Ayton	1925
Sanderson, Miss Jean ; Gunsgreen Hill, Ayton	1921
Sanderson, Ninian ; Greenhead, Reston	1922
Scott, Miss Catherine Corse ; Meadow House, St Boswells	1923
Scott, James Cospatrik ; Broomlands, Kelso	1921
Scott, The Hon. Walter T. Hepburne, Master of Polworth, Harden, Hawick	1926
Scott-Ker, Lieut.-Col. Francis L. ; Ashby, Melrose	1924
Scrymgeour, The Rev. J. Tudor ; Manse of Ladykirk, Norham- on-Tweed	1928
Sharp, James ; Horsburgh Castle, Peebles	1923
Sharpe, Major Robert W. ; The Park, Earlston	1922
Shaw, Rev. Archibald ; M.A., B.D. ; Wellington Terrace, Berwick-upon-Tweed	1926
Short, Mrs Eva D. ; Old Graden, Kelso	1927
Short, Thomas B. ; Warenlee, Belford, Northumberland	1888
Simpson, A. Russell ; 9 Doune Terrace, Edinburgh	1922
Simpson, Mrs Dorothy ; do. do.	1922
Simpson, J. R. ; The Limes, Selkirk	1922
Simpson, John Melville Drummond ; Broomiebrae, Earlston	1920
Simpson, Richard H. ; South View House, Alnmouth	1897
Smail, Elliot Redford ; 80 Nicolson Street, Edinburgh	1899
Smail, Henry Richardson ; 4 Ravensdowne, Berwick	1919
Smith, Mrs Ida Florence ; Whitchester, Duns	1915
Smith, James R. C. ; Mowhaugh, Kelso	1890
Smith, John ; Longhoughton Hall, Alnwick	1922
Smith, John E. T. ; 20 Castle Terrace, Berwick	1925
Smith, John Darling ; Peelwalls, Ayton	1925
Smith, Mrs ; do. do.	1925
Smith, R. Colley ; Ormiston House, Roxburgh	1892
Smith, T. D. Crichton ; Solicitor ; Newlands, Kelso	1881
Smith, Thomas Cleghorn ; 20 Castle Terrace, Berwick	1924
Smith, Miss Wilson ; Pouterlany, Duns	1925
*Somervail, James Alex. ; Hoselaw, Kelso	1897
Spark, John ; Ellangowan, Melrose	1925
Spark, Wm. ; Halcombe, Earlston	1923
Spark, Mrs Liliac C. ; do. do.	1925
Spence, Rev. J. R. ; B.D. ; The Manse, Southdean, Hawick	1924
Spiers, Henry ; M.D., F.R.C.S. Ed. ; St Dunstan's, Melrose	1925
Steven, Major Alex. ; T.D. ; of <i>The Berwickshire News</i> , Berwick	1896
Steven, Alex. Cockburn Allison ; "St Duthus," Berwick	1924
Stevenson, Mrs A. V. ; Tuggal Hall, Chathill	1925
Stevenson, Miss Margaret ; do. do.	1925
Stevenson, Miss Sheila ; do. do.	1925
Stewart, John Wm. ; Broadmeadows House, Hutton	1926
Stewart, Miss Emily Jessie ; do. do.	1926
Stirling, Thomas ; St Boswells	1922
Stodart, Charles ; Leaston, Humbie, East Lothian	1916

	Date of Admission.
Stodart, Col. T. ; C.I.E., I.M.S. ; Kingston House, North Berwick	1922
Stokoe, Edward ; Embleton, Christon Bank, Northumberland	1927
Swan, Thomas Allan ; Lanark Lodge, Duns	1920
Swinton, Rev. Alan Edulf ; M.A. ; Eaglesheugh, Coldstream	1915
Swinton, Mrs Alan E. ; do. do.	1923
Swinton, Miss Katherine Maud ; Laws Farm House, Edrom	1926
Swinton, Miss Mary Edith ; do. do.	1926
Swinton, Miss ; Kimmerghame, Duns	1922
Sym, Rev. Arthur Pollok ; D.D. ; 18 Wester Coates Gardens, Edinburgh	1895
Tait, Alex. ; Coldingham	1923
Tait, T. M'Gregor ; 45 Woolmarket, Berwick	1923
Talbot, Bertram ; Monteviot, Ancrum, Roxburghshire	1913
Tate, Mrs Arthur ; Tweedhill, Berwick	1922
Tate, Captain George ; Brotherwick, Warkworth	1914
Taylor, E. E. P. ; Pawston, Mindrum	1923
Terras, James A. ; B.Sc. ; 40 Findhorn Place, Edinburgh	1903
Thew, Edward ; Silverdale, Linden Road, Gosforth	1887
Thin, James H. ; 54 South Bridge, Edinburgh	1883
Thomson, Mrs A. D. ; Nenthorn, Kelso	1928
Thorp, Collingwood F. ; B.A. ; Narrowgate House, Alnwick	1923
Thorp, Thomas Alder ; Bondgate Hall, Alnwick	1890
Threipland, P. W. Murray ; Dryburgh Abbey, St Boswells	1924
Tippinge, Mrs Gartside- ; Berrywell, Duns	1922
Tippinge, Miss Evelyn M. Gartside- ; do. do.	1923
Trotter, Lieut.-Col. A. R. ; M.V.O., D.S.O., Charterhall, Duns	1915
Turnbull, Mrs Amy ; Eastfield of Lempitlaw, Kelso	1921
Turnbull, George G. ; Abbey St Bathans, Grantshouse	1893
Turnbull, James George Stuart ; Burncastle, Lauder	1919
Turnbull, Mrs Jane D. ; Leaderview, Lauder	1926
Tweedie, James ; Longstone View, Berwick	1920
Tytler, Mrs Christian Alice Fraser ; Sunlaus, Roxburgh, N.B.	1921
Usher, Lady ; Wells, Hawick	1920
Usher, Miss Gertrude ; Shirrafield, Yetholm, Kelso	1924
Veitch, Mrs David A. ; Barniken, Duns	1927
Veitch, James ; Inchbonny, Jedburgh	1899
Villiers, Mrs S. D. F. ; Adderstone Hall, Belford	1925
Voelcker, John A. ; M.A., Ph.D., B.Sc., F.L.S., F.C.S., F.I.C., C.I.E. ; 20 Upper Phillimore Gardens, Kensington, London, W.	1895
Waddell, James Alex. ; of Leadloch, 12 Kew Terrace, Botanic Gardens, Glasgow	1915
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INDEX

- Abbey St Bathans, effigy of Prioress at, 77, Pl. VI.
- Addresses, Presidential, by Rev. Henry Paton, M.A., on Club motto, 1-15; by Captain Fullarton James, on Some Notes on Justice on the Border, 97-110; by Major Charles H. Scott Plummer, on the chase in the Borders, 285-300.
- Allcroft, *Earthwork of England*, English dykes, 359.
- Alnham, ancient grave-slab at, 311.
- Altarstone, Dreva, large flat-topped rock at, 21.
- Anaximander of Miletus forestalled Spencer, 10.
- Anthropological Institute, Royal, letter from, 132, 133.
- Archæology, report for 1927, 131.
- Aristotle and evolution, 11.
- Australian pioneer, An, 322.
- Badge of Club, 2, 17, 46.
- Barrett, *Lepidoptera of the British Islands*, 209.
on *Tephrosia*, 209.
- Bass Rock, meeting at, 304.
- Bass, Lady, Dame Isobel Hepburn, 396
- Batters, Edward A. L., on seaweed, 3.
- Bell, James Patrick Fair, F.R.S.E., elected, 23.
- Berwick, annual business meetings : 1926, 44-50; 1927, 128-134; 1928, 312-317.
Library transferred to 4 Silver Street, 265.
new bridge at, 44, 45, 129.
old wooden bridge, timbers of, exposed, 134, Pl. X.
- Berwickshire, Black Dykes of, 359-375.
insects, notes on, 228-243.
meteorological observations during 1926, 94; 1927, 282; 1928, 397.
monumental effigies of, 76-83, Pls. VI-IX.
mosses and hepatics of, 246, 247.
rainfall during 1926, 95; 1927, 283; 1928, 398.
- Bible and Science, 11-15.
- Biddulph, Lady, elected, 23.
- Birds of Berwickshire, The*, by G. Muirhead, 387.
- Bishop, John, reports of meetings of British Association at Leeds, 1927, 256-265; at Glasgow, 1928, 379-382.
- Blackcastle Rings, described by J. Hewat Craw, 303.
- Black Dykes of Berwickshire, *The*, by James Hewat Craw, 359-375.
- Boon Dyke, 364-366.
- Broomhill Dyke, 374.
- Clints Dyke, 375.
- Dabshead Hill Dyke, 374-375.
- Dowlaw Road Dyke, 367-368.
- Drakemyre Dyke, 368-369.
- Dye Cottage Dyke, 373.
- Edington Hill Dyke, 366-367.
- Ellemford Dyke, 372.
- Greenburn Dyke, 368.
- Hardens Hill, 370-372.
- Herrits Dyke, 361-364.
- Hoardweel Dyke, 369-370.
- Horsley Dyke, 369.
- Jeanie's Wood Dyke, 370.
- Kettelshiel Dyke, 372.
- Marygold Dyke, 369.
- Quixwood Dyke, 372.
- Redpath Dyke, 373.

- Blair, C. H. Hunter, acts as guide to Etal and Ford castles, 309.
nominated President, 313.
- Bolam, George, Fishes of Northumberland, 3.
Lepidoptera of Northumberland and the Eastern Borders, 135-227; 323-358. *For list, see Lepidoptera.*
obituary of Dr Muirhead, 386-390.
- Bolam, George, Alnwick, death of, 130.
- Boon Black Dyke, 364-366.
- Border History, A phase of, by J. Lindsay Hilson, 266-270.
- Border Library, A Scottish, by J. Lindsay Hilson, 51-67.
- Bosanquet, R. C., obituary of Howard Pease, 393-396.
- Botany, report for 1928, 316.
- Bothal, visit to castle and church, 119.
- Boyd, Mr, paper on Snowdrop, 5.
- Bragg, Sir William, Presidential address to British Association at Glasgow, 1928, 380.
- Briggs, Miss C. M., elected, 317.
- British Association, reports of meetings of—at Oxford, 1926, 248-255; Leeds, 1927, 256-265; Glasgow, 1928, 379-382.
- Bromby, Miss Fanny, elected, 128.
- Broomhill Black Dyke, 374.
- Buchan, J. W., editor of *History of Peeblesshire*, describes Neidpath Castle, 17.
- Bulman, Mrs, elected, 121.
- Burn-Murdoch, Mrs, death of, 130.
- Butler, G. G., M.A., report of meeting of British Association at Oxford, 1926, 248-255.
- Bywater, Miss M., elected, 304.
- Campbell, Rev. George, elected, 312.
- Cappuck, Roman fort of, 38-40, Pl. IV.
- Carr, Miss E. M., elected, 304.
- Carr, Joseph William, elected, 23.
- Catrail, The, 359, 361, 365.
- Challenger*, Report of, 3.
- Cheviot, botanical meeting at, 24.
- Cist of Bronze Age found at Tweedmouth, 131, 132.
at West Kyle, 131.
- Clark, James, M.A., D.Sc., A.R.C.S., Notes on the Insects of Berwickshire. II. Sawflies, 228-243.
- Clark, Dr James, elected, 309.
- Clark, William Donald, elected, 23.
- Clay, Miss Emily, elected, 114.
- Clints Black Dyke, 375.
- Cockburnspath, ruined church of St Helens, effigies at, 78-79, Pl. VII.
- Cockpen, the lairds of, 74-75.
- Corsbie, meeting at, 30.
Tower, 32, Pl. II.
- "Craftsmanship and Science," Presidential address to British Association at Glasgow, 1928, 380.
- Craw, James Hewat, Account of rainfall in Berwickshire: 1926, 95; 1927, 283; 1928, 398.
- Black Dykes of Berwickshire, The, 359-375.
half a century of Merse weather, 383-385.
heraldic panel at Edlingham church, 29.
at Roseden, 244, 245.
Kirknewton grave-slab, A, 50.
monumental effigies of Berwickshire, 76-83, Pls. VI-IX.
- Croal, Mrs J. G., elected, 305.
- Crockett, Rev. W. S., account of Thomas the Rhymer, 33.
- Cruikshank, Rev. J. R., describes Stobo church, 18.
- Culley, Leather-, Mrs George, elected, 114.
- Dane's Dyke, 360.
- Darwin, Charles, Sir Arthur Keith on, at British Association meeting at Leeds, 1927, 259, 260.
The Descent of Man, 259.
The Origin of Species, 259.
- Dawyck, visit to, 21-23.
- Devil's Dyke of Cambridgeshire, 359.
- Dixon, Mr, list of mosses, 4.
- Dobb's Linn, 306-307.

- Douglas, Sir George, obituary of Henry Rutherford, 390-392.
- Douglas, Rev. J. R., elected, 304.
- Douglas, William, institution of Mr Andrew Stevenson to kirk of Dunbar, 68-73.
- "Dowcat" rights, 378.
- Dreva fort, 23.
- Drummond, Dr James, death of, 1, 46.
- Dunbar, the kirk of, 68.
- Duncan, J. B., The mosses and hepatics of Berwickshire and North Northumberland, 246-247.
- Dunstanburgh Castle, 34-36. saddle rock at, 36, Pl. III.
- Earlston, Thomas the Rhymer's connection with, 33.
- Edington Hill Black Dyke, 366-367.
- Edlingham church and castle, 27-29, Pl. I.
- Edrom, effigies at, 79-82.
- Eliot, Sir Gilbert, 15.
- Elliott, Lady Hannah, of Stobs, death of, 130.
- Ellemford Black Dyke, 372.
- Embleton, church of, 36, 37.
- Entomology, reports for 1926, 48; 1927, 131.
- Ettrick Forest as Royal hunting-ground, 285-286.
- Fenning, Rev. S. E. R., elected, 304.
- Ferguson, John, death of, 1, 46. obituary of, 87-93.
- Five Stones Circle at Pennymuir, 42.
- Fleming, Mrs Elizabeth, elected, 114.
- 'Forty-five, a link with, 67.
- Foul Ford, The story of the, by Thomas Gibson, J.P., 318-322.
- Fraser, William, elected, 304.
- Gamelshiel Tower, story of, 117.
- Garden, Miss Margaret, elected, 317.
- Geometrina* (Moths), *see* Lepidoptera.
- Gibson, Gideon J., death of, 314.
- Gibson, Thomas, The story of the Foul Ford, 318-322.
- Glegg, Mrs J. C., elected, 317.
- Grave-slabs—at Alnham, 311. at Edlingham church, 28.
- Grave-slabs:—
at Kirknewton, 50.
Longformacus, grave-slab from, 82.
in Stobo church, 19; in graveyard, 19-20.
- Greenburn Black Dyke, 368.
- Greet, T. G., an Australian pioneer, 322.
- Grey, Viscount, on birds at Fal-lodon, 6.
- Halidon Hill, story of, retold by Dr M'Whir, 313.
- Hall, George, *Practical Sermons on Several Subjects*, 377.
- Hall, Henry, of Haughead, famous Covenanter, 377.
- Halls of Haughead, 376-378.
- Hardens Hill Black Dyke, 370-372.
- Hardy, Dr, list of mosses, 4.
- Harrison, Prof. J. W. H., on *Tephrosia*, Lepidoptera, 209.
- Haughead, Halls of, 376-378, Pl. XI. banner of, 378.
- Hay, Capt. Lord Edward, elected, 114.
- Hay family, 17.
- Henderson, Philip MacLagan, death of, 130.
- Hendersyde Park, library catalogue, 54-67.
- Hendry, Rev. Peter Geddes, death of, 130.
- Hepatics of Berwickshire, 86, 247.
- Herbertson, J. M., elected, 317.
- Herriot, Miss Jean, elected, 49.
- Herrits Dyke, 361-364.
- Hewat, Richard J. A., death of, 1, 46.
- Hilson, J. Lindsay, A. phase of Border History, 266-270.
Scottish Border Library, A, 51-67.
- Hoardweel Black Dyke, 369-370.
- Hodgson, John Crawford, M.A., death of, 130.
obituary notice of, 271-272.
Bibliography, 272-281.
Archæologia Æliana, 275-276.
Berwickshire Naturalists' Club, 272-274.
Notes and Queries, 280.
Northern Notes and Queries, 280.

Hodgson—Bibliography :—
Northumberland County History, 280.
 Other Publications, 281.
Proceedings of the Newcastle Society of Antiquaries, 277.
 Surtees Society Publications, 279.

Hogg, Miss Margaret, elected, 23.
 Hogg, William, elected, 23.
 Holderness, Mrs Helen M. G., elected, 49.
 Holme, Charles H., death of, 314.
 Home, David Patrick Milne, elected, 114.
 Home, Miss Helen Mary Logan, elected, 114.
 Home, Patrick, and his wife, effigies of, at Edrom, 79-82, Pls. VIII, IX.
 Hood, Betty W., elected, 33.
 Hope, Miss Mary Isabel, appointment of, as Secretary, 265.
 Horsley Black Dyke, 369.
 Hoyle, Miss Frances, elected, 305.
 Hughes, G. P., congratulations to, on seventy years membership, 112.
 elected corresponding member, 316.
 Hume, P. Mercer, elected, 317.
 Hume Castle, visit to, 125-127.
 Hunting in the Borders, Presidential address by Major C. H. Scott Plummer, 285-300.
 Huxley, T. H., definition of Science, 9.
Man's Place in Nature, 258.

Ilderton church, visit to, 114.
 Influenza in 1728, 385.
 Inglis, Rev. R. C., death of, 314.
 obituary of, 393.
 Insects of Berwickshire, by James Clark, M.A., D.Sc., A.R.C.S., 228-243.

James, Capt. Fullarton, nominated President, 45.
 Presidential address on Justice on the Border, 97-110.
 Jeanie's Wood Black Dyke, 370.
 Johnstone, Dr George, and Badge, 2.
 Johnstone, Dr John C., death of, 314.

Justice on the Border, some notes on, Presidential address by Capt. Fullarton James, 97-110.

Keith, Sir Arthur, Presidential address at British Association, Leeds, 1927, 257-263.

Kettelshiel Black Dyke, 372.

Kirknewton grave-slab, A, by J. Hewat Craw, 50.

Konow, Pastor, classification of sawflies, 228.

Lammermoor Tragedy, A, 318-322.

Lauder, George, residence on the Bass Rock, 396.

Law and justice, 98.

Leech, *British Pyralides*, 345.

Legerwood church, visit to, 31, 32.

Leishman, Miss Augusta Drevar Fleming, elected, 114.

Leishman, Rev. J. F., on the lairds of Cockpen, 74, 75.

Lepidoptera, The, of Northumberland and the Eastern Borders, by G. Bolam, 135-227, 323-358.

NOCTUINA. Moths.

Acronycta euphorbiæ (Sweet-gale Moth), 139.

Acronycta leporina (Miller), 138.

Acronycta ligustri (Coronet), 139.

Acronycta megacephala (Poplar Grey), 138.

Acronycta menyanthidis (Light Knotgrass), 139.

Acronycta psi (Common Dagger), 139.

Acronycta rumicis (Knotgrass), 139.

Acronycta strigosa (The Gribsette), 138.

Acronycta tridens (Dark Dagger), 138.

Agrotis agathina (Heath Rustic), 143.

Agrotis aquilina (Streaked Dart), 142.

Agrotis corticea (Heart and Club), 140.

Agrotis cursoria (Coast Dart), 141.

Agrotis exclamatoris (Heart and Dart), 140.

Lepidoptera—Noctuina :—

- Agrotis lucernæ* (Northern Rustic), 144.
Agrotis lunigera (Crescent Dart), 141.
Agrotis nigricans (Garden Dart), 141.
Agrotis obeliscæ (Square-spot Dart), 142.
Agrotis porphyrea (True Lover's Knot), 143.
Agrotis præcox (Portland Moth), 143.
Agrotis pyrophila (Dotted Rustic), 144.
Agrotis ravidæ (Stout Dart), 144.
Agrotis saucia (Pearly Underwing), 143.
Agrotis segetum (Turnip Moth), 140.
Agrotis suffusa (Dark Sword-grass), 140.
Agrotis tritici (White-line Dart), 141.
Agrotis valligera (Archer's Dart), 140.
Amphipyra pyramidea (Copper Underwing), 176.
Amphipyra tragopogonis (The Mouse), 176.
Anarta myrtilli (Beautiful Yellow Underwing), 194.
Apamea basilinea (Rustic Shoulder-Knot), 165.
Apamea gemina (Dusky Brocade), 166.
Apamea oculea (Common Rustic), 166.
Apamea ophiogramma (Double-lobed), 166.
Apamea unanimitis (Small Clouded Brindle), 166.
Aplecta nebulosa (Grey Arches), 153.
Aporophylla lutulenta (Deep-brown Dart), 159.
Aporophylla nigra (Black Rustic), 160.
Asphalia diluta (Lesser Lute-string), 137.
Asphalia flavicornis (Yellow-horned), 137.
Aventia flexula, 196.
Axylia putris (The Flame), 145.

Lepidoptera—Noctuina :—

- Brephos parthenias* (Orange Underwing), 197.
Bryophila perla (Marbled Beauty), 193.
Calamia lutosæ (Large Wainscot), 171.
Calamia (Leucania) phragmitidis, 172.
Calocampa exoletæ (Sword-Grass), 186.
Calocampa vetusta (Red Sword-Grass), 186.
Calymnia trapezina (The Dun Bar), 179.
Caradrina alsines, 178.
Caradrina blanda (Powdered Rustic), 178.
Caradrina cubicularis (The Hay Moth), 178.
Caradrina morpheus (Mottled Rustic), 177.
Catocala fraxini (Clifden Beauty), 195.
Catocala nupta (Red Underwing), 195.
Celæna haworthii (Haworth's Minor), 166.
Cerastis ligula (spadicea), Dark Chestnut, 185.
Cerastis vacciniæ (Chestnut), 185.
Cerigo cytherea (Straw Underwing), 163.
Charæas graminis (The Antler), 151, 152.
Chariclea marginata (Bordered Sallow), 191.
Chariptera aprilina (Marvel-du-Jour), 162.
Cirrhædia xerampelina (Centre-barred Sallow), 182.
Cleoceris viminalis (Minor Shoulder-knot), 162.
Cucullia absinthii (Wormwood Shark), 187.
Cucullia chamomillæ (Chamomile Shark), 187.
Cucullia umbratica (Large Pale Shark), 187.
Cucullia verbasci (Mullein Shark), 186.
Cymatophora duplaris (Lesser Satin), 135.
Cymatophora fluctuosa (Satin Moth), 136.

Lepidoptera—Noctuina :—

- Cymatophora ocularis* (Figure-of-80), 136.
Cymatophora or (Poplar Lute-string), 136.
Cymatophora ridens (The Frosted Green), 137.
Dasypolia templi (Brindled Ochre), 160.
Dianthæcia capsicola (The Lychnis), 159.
Dianthæcia carpophaga (Tawny Shears), 158.
Dianthæcia conspersa (Marbled Coronet), 159.
Dianthæcia cucubali (The Campion), 159.
Dryobota protea (Brindled Green), 161.
Dyschorista suspecta (The Suspected), 179.
Dyschorista upsilon (The Dis-mal), 178.
Erastria fuscula (Marbled White-spot), 193.
Euclidia glyphica (Burnet Noctua), 196.
Euclidia mi (Mother Shipton), 196.
Euperia fulvago (Angle-striped Sallow), 179.
Euplexia lucipara (Small Angle Shades), 168.
Eurois adusta (Dark Brocade), 151.
Eurois herbida (Green Arches), 149.
Eurois occulta (Gt. Brocade), 150.
Eurois satura (Beautiful Brocade), 150.
Gonophora derasa (Buff Arches), 135.
Gonoptera libatrix (Herald Moth), 194.
Gortyna flavago (Frosted Orange), 170.
Grammesia trilinea (Treble Lines), 178.
Habrostola triplasia (Dark Spectacle), 191.
Habrostola urticæ (Light Spectacle), 191.
Hadena chenopodii (The Nutmeg), 156.
Hadenadentina (The Shears), 155.

Lepidoptera.—Noctuina :—

- Hadena genistæ* (Light Brocade), 155.
Hadena glauca (Glaucous Shears), 155.
Hadena oleracea (Bright-line Brown-eye), 155.
Hadena pisi (Broom Moth), 155.
Hadena suasa (Dog's-tooth), 154.
Hadena thalassina (Pale-shouldered Brocade), 154.
Hama abjecta (Crescent Striped), 163.
Hama anceps (Large Nutmeg), 163.
Hama furva (The Confused), 164.
Hecatera serena (Broad-barred White), 157.
Heliodes arbuti (Small Yellow-underwing), 192.
Heliphobus cespitis (Hedge Rustic), 153.
Heliphobus popularis (Feathered Gothic), 152.
Heliothis armigera (Scarce Bordered Straw), 192.
Heliothis peltigera (Bordered Straw), 192.
Helotropha fibrosa (The Crescent), 169.
Herminia barbalis, 196.
Herminia grisealis, 197.
Herminia tarsipennalis, 197.
Hydrilla arcuosa (Small Dotted-Buff), 177.
Hydræcia micæa (Rosy Rustic), 169.
Hydræcia nictitans (Ear-Moth), 169.
Hydræcia petasitis (Butter-bur), 169.
Hypena proboscidalis (The Snout), 197.
Hypena rostralis, 197.
Hypenodes costæstrigalis, 197.
Hyppa rectilinea (The Saxon), 168.
Leucania comma (Shoulder-striped Wainscot), 172.
Leucania conigera (Brown-line Bright-eye), 172.
Leucania impura (Smoky Wainscot), 172.

Lepidoptera—Noctuina :—

- Leucania lithargyria* (The Clay), 172.
Leucania littoralis (Shore Wainscot), 172.
Leucania pallens (Common Wainscot), 172.
Luperina testacea (Flounced Rustic), 162.
Mamestra albicollis (White Collar), 156.
Mamestra brassicæ (Cabbage-moth), 157.
Mamestra persicariæ (The Dot), 157.
Mania maura (Old Lady), 175.
Miana captiuncula (Lesser Minor), 167.
Miana fasciuncula (Middle-barred Minor), 167.
Miana furuncula (Cloaked Minor), 167.
Miana literosa (Rosy Minor), 167.
Miana strigilis (Marbled Minor), 167.
Miselia oxyanthæ (Green Brindled Crescent), 162.
Nenia typica (Dark Gothic), 176.
Noctua augur (Double Dart), 146.
Noctua baja (Dotted Clay), 146.
Noctua brunnea (Purple Clay), 147.
Noctua C-nigrum (Setaceous Hebrew Character), 146.
Noctua conflua (Lesser Ingrailed), 148.
Noctua dahliei (Barred Chestnut), 147.
Noctua depuncta (Plain Clay), 146.
Noctua festiva (Ingrailed Clay), 148.
Noctua glareosa (Autumnal Rustic), 146.
Noctua neglecta (Grey Rustic), 149.
Noctua plecta (Flame Shoulder), 146.
Noctua rhomboidea (Square-spotted Clay), 147.
Noctua rubi (Small Square-spot), 148.
Noctua triangulum (Double-spotted Square-spot), 146.

Lepidoptera—Noctuina :—

- Noctua umbrosa* (Six-striped Rustic), 149.
Noctua xanthographa (Square-spot Rustic), 146.
Nonagria typhæ (Bull-rush Moth), 170.
Orthosia ferruginea (The Brick), 180.
Orthosia litura (Brown-spot Pinion), 181.
Orthosia lota (Red-line Quaker), 182.
Orthosia lunosa (Lunar Underwing), 181.
Orthosia macilenta (Yellow-line Quaker), 182.
Orthosia pistacina (Beaded Chestnut), 181.
Orthosia rufina (Flounced Rustic), 180.
Pachetra leucophæa (Feathered Ear Moth), 153.
Pachnobia rubricosa (Red Chestnut), 175.
Panolis piniperda (Pine Beauty), 172.
Phlogophora meticulosa (Angle Shades), 168.
Phytometra ænea (Small Purple-barred), 193.
Plusia bractea (Gold Spangle), 188.
Plusia chrysis (Burnished Brass), 188.
Plusia festuæ (Gold Spot), 189.
Plusia gamma (Silver-Y), 190.
Plusia interrogationis (Scarce Silver-Y), 190.
Plusia iota (Gold-Y), 190.
Plusia moneta (The Golden-8 Moth), 188.
Plusia pulchrina (Beautiful Golden-Y), 189.
Polia chi (Grey Chi), 161.
Polia flavicincta (Large Ranunculus), 161.
Rivula sericealis (Straw Dot), 197.
Rusina tenebrosa (Brown Feathered Rustic), 175.
Sarrothripa revayana, 194.
Schranksia turfosalis, 197.
Scopelosoma satellitia (The Satellite), 185.

Lepidoptera—Noctuina :—

- Stilbia anomala* (The Anomalous), 177.
Tæniocampa cruda (Small Quaker), 173.
Tæniocampa gothica (Hebrew Character), 173.
Tæniocampa gracilis (Pondered Quaker), 174.
Tæniocampa instabilis (Clouded Drab), 174.
Tæniocampa miniosa (Blossom Underwing), 173.
Tæniocampa munda (Twin-spotted Quaker), 174.
Tæniocampa opima (Northern Drab), 174.
Tæniocampa populeti (Lead-coloured Drab), 174.
Tæniocampa stabilis (Common Quaker), 173.
Tapinostola elymi (The Lyme Grass), 171.
Tapinostola fulva (Small Wainscot), 171.
Tethea subtusa (The Olive), 180.
Thyatira batis (Peach Blossom), 135.
Triphæna fimbria (Broad-bordered Yellow Underwing), 145.
Triphæna janthina (Lesser Broad-bordered Yellow Underwing), 145.
Triphæna orbona (Common Yellow Underwing), 145.
Triphæna pronuba (Large Yellow Underwing), 145.
Triphæna subsequa (Lunar Yellow Underwing), 145.
Xanthia cerago (The Sallow), 183.
Xanthia citrigo (Orange Sallow), 183.
Xanthia gilvago, 184.
Xanthia silago (Pink Barred Sallow), 184.
Xylina rhizolitha (Grey Shoulder-knot), 185.
Xylocampa lithorhiza (Early Gray), 185.
Xylophasia hepatica (Clouded Brindle), 165.
Xylophasia lithozylea (Light Arches), 164.

Lepidoptera—Noctuina :—

- Xylophasia polyodon* (Dark Arches), 165.
Xylophasia rurea (Cloud-bordered Brindle), 165.
Xylophasia sublustis (Reddish Light Arches), 164.
 GEOMETRINA. Moths.
Abraxas grossulariata (Magpie Moth), 213.
Abraxas ulmata (Clouded Magpie), 213.
Acidalia aversata (Riband Wave), 219.
Acidalia bisetata (Small Fan-footed Wave), 217.
Acidalia dilutaria (Dark Cream Wave), 217.
Acidalia fumata (Smoke Wave), 219.
Acidalia immutata (Lesser Cream Wave), 218.
Acidalia incanaria (Small Dusty Wave), 218.
Acidalia inornata (Plain Wave), 219.
Acidalia promutata (incanata, Hüb., and (in part) incanaria in Newman), 218.
Acidalia remutata (Cream Wave), 219.
Acidalia scutulata (Single-dotted wave), 217.
Acidalia trigeminata (Treble Brown-spot), 217.
Anaitis plagiata (Treble-bar), 336.
Ania emarginata (Small Scallop), 220.
Anisopteryx æscularia (March Moth), 213.
Anticlea badiata (Shoulder Stripe), 222.
Anticlea derivata (The Streamer), 223.
Aspilates strigillaria (Grass Wave), 201.
Asthenia blomeri (Blomer's Rivulet), 324.
Asthenia candidata (Small White Wave), 323.
Asthenia luteata (Small Yellow Wave), 323.
Asthenia sylvata (Waved Carpet), 324.

Lepidoptera—Geometrina—

- Biston betularia* (Pepper and Salt), 207.
Boarmia consortaria (Pale Oak Beauty), 211.
Boarmia repandata (Mottled Beauty), 211.
Boarmia rhomboidara (Willow Beauty), 211.
Cabera exanthemaria (Common Wave), 198.
Cabera pusaria (White Wave), 198.
Camptogramma bilineata (Yellow Shell), 329.
Carsia imbutata (Manchester-Treble-bar), 336.
Cheimatobia boreata (Northern Winter-Moth), 334.
Cheimatobia brumata (Winter-Moth), 334.
Chesias spartiata (The Streak), 336.
Cidaria corylata (Broken-barred Carpet), 326.
Cidaria dotata (The Spinach), 328.
Cidaria fulvata (Barred Yellow), 328.
Cidaria immamata (Dark Marbled Carpet), 327.
Cidaria miata (Autumn Green Carpet), 326.
Cidaria populata (Northern Spinach), 328.
Cidaria prunata (= *C. rebesinria*) (The Phoenix), 327.
Cidaria psittacata (Red-green Carpet), 326.
Cidaria pyraliata (Barred Straw), 328.
Cidaria russata (Marbled Carpet), 327.
Cidaria silaceata (Small Phoenix), 327.
Cidaria suffumata (Water... Carpet), 327.
Cidaria testata (The Chevron), 329.
Cleora glabraria (Dotted Carpet), 209.
Cleora lichenaria (Brussels Lace), 208.
Coremia didymata (The Twin-spot), 225.

Lepidoptera—Geometrina:—

- Coremia ferrugata* (Red Twin-spot), 224.
Coremia fluctuata (Garden Carpet), 223.
Coremia montanata (Silver-ground Carpet), 223.
Coremia multistrigaria (Mottled Grey), 225.
Coremia munitata (Red Carpet), 223.
Coremia pectinitaria (Green Carpet), 225.
Coremia propugnata (Flame Carpet), 224.
Coremia salicata (Striped Twin-spot), 225.
Coremia unidentaria (Dark-barred Twin-spot), 224.
Crocallis elinguarua (Scalloped Oak), 203.
Ellopie fasciaria (Barred Red), 206.
Emmelesia affinitata (The Rivulet), 324.
Emmelesia albulata (Grass-Rivulet), 325.
Emmelesia alchemillata (Small Rivulet), 324.
Emmelesia blandiata (Pretty Pinion), 326.
Emmelesia decolorata (Sandy Rivulet), 325.
Emmelesia ericetata (Heath-Rivulet), 325.
Emmelesia unifasciata (Haworth's Carpet), 325.
Ennomos alniaria (Canary-shouldered Thorn), 202.
Ennomos angularia (August Thorn), 203.
Ennomos erosaria (September Thorn), 203.
Ennomos fuscantaria (Dusky Thorn), 202.
Ephyra pendularia (Birch Mocha), 216.
Ephyra punctaria (Maiden's Blush), 215.
Ephyra trilinearia (Clay Triple-lines), 216.
Epione apiciaria (Bordered Beauty), 205.
Epione vespertaria (Dark Bordered Beauty), 206.

Lepidoptera—Geometrina :—

- Eubolia bipunctaria* (Chalk Carpet), 337.
Eubolia cerninata (Mallow), 337.
Eubolia mensuraria (Small Mallow), 338.
Eubolia palumbaria (Belle), 337.
Eupisteria heparata (Dingy Shell), 324.
Eupithecia abbreviata (Brindled Pug), 343.
Eupithecia absynthiata (Wormwood-Pug), 342.
Eupithecia albipunctata (White-spotted Pug), 340.
Eupithecia assimilata (Currant-Pug), 343.
Eupithecia castigata (Grey Pug), 340.
Eupithecia centaureata (The Time-speck), 338.
Eupithecia constrictata (Wild-Thyme-Pug), 340.
Eupithecia exigua (Mottled Pug), 344.
Eupithecia fraxinata (Ash-tree-Pug), 342.
Eupithecia helveticaria (Edinburgh Pug), 341.
Eupithecia indigata (Ochreous Pug), 340.
Eupithecia innotata (Wormwood-Pug), 342.
Eupithecia lariciata (Larch-Pug), 340.
Eupithecia linariata (Toadflax-Pug), 338.
Eupithecia minutata (Ling Pug), 342.
Eupithecia nanata (Narrow-winged Pug), 339.
Eupithecia pimpinellata (Pimpinell Pug), 340.
Eupithecia plumbeolata (Lead-coloured Pug), 341.
Eupithecia pulchellata (Foxglove Pug), 338.
Eupithecia pumilata (Double-striped Pug), 344.
Eupithecia pusillata (Dwarf Pug), 339.
Eupithecia pygmaea (Marsh-Pug), 341.
Eupithecia rectangulata (Green Pug), 344.

Lepidoptera—Geometrina :—

- Eupithecia satyrata* (Satyr-Pug), 341.
Eupithecia sobrinata (Juniper-Pug), 344.
Eupithecia subfulvata (Tawny Speck), 339.
Eupithecia subumbrata (Shaded Pug), 339.
Eupithecia succenturiata (Bordered Lime-Speck), 339.
Eupithecia tenuiata (Slender Pug), 343.
Eupithecia togata (Cloaked Pug), 338.
Eupithecia valerianata (Valerian-Pug), 342.
Eupithecia venosata (Netted Pug), 338.
Eupithecia vulgata (Common Pug), 342.
Eurymene dolobraria (Scorch-wing), 201.
Fidonia atomaria (Common Heath), 200.
Fidonia carbonaria, 200.
Fidonia pinetaria (Rannoch Geometer), 200.
Fidonia piniaria (Bordered White), 200.
Geometra papilionaria (Large Emerald), 214.
Gnophos obscurata (The Annulet), 208.
Halía wavaría (Garden V.), 199.
Hemithea thymiaria (Common Emerald), 215.
Himera pennaria (Feathered Thorn), 204.
Hybernia aurantiaria (Scarce Umber), 211.
Hybernia defoliaria (Mottled Umber), 212.
Hybernia leucophaea (Spring Usher), 212.
Hybernia progemma (Dotted Border), 212.
Hybernia rupicapra (Early Moth), 213.
Hypsipetes elutata (July High-flyer), 334.
Hypsipetes impluviata (May Highflyer), 333.
Hypsipetes ruberata (Ruddy Highflyer), 333.

Lepidoptera—Geometrina :—

- Iodis lactæaria* (Little Emerald), 215.
Larentia cæsiata (Grey Mountain Carpet), 226.
Larentia flavicinctata (Yellow-ringed Carpet), 226.
Larentia olivata (Beech-green Carpet), 226.
Ligdia adusta (Scorched Carpet), 214.
Lobophora lobulata (Early Tooth-striped), 335.
Lobophora sexalata (Small Seraphim), 335.
Lobophora viretata (Yellow-barred Brindle), 335.
Lomasipilis marginata (Small Magpie or Clouded Border), 214.
Macaria liturata (Tawny-barred Angle), 199.
Melanippe galiata (Galium Carpet), 221.
Melanippe hastata (Argent and Sable), 220.
Melanippe rivata (Wood Carpet), 220.
Melanippe subtristata (*sociata*) (Common Carpet), 221.
Melanippetristata (Small Argent and Sable), 220.
Melanthia albicillata (Beautiful Carpet), 222.
Melanthia ocellata (Purple Bar), 222.
Melanthia rubiginata (Blue-bordered Carpet), 221.
Melanthia unangulata (Sharp-angled Carpet), 222.
Metrocampa margaritata (Light Emerald), 206.
Numeria pulveraria (Barred Umber), 200.
Nyssia hispidaria, 208.
Odontoptera bidentata (Scalloped Hazel), 201.
Oporabia autumnaria, 334.
Oporabia dilutata (November-Moth), 334.
Oporabia filigrammaria (Autumnal Moth), 334.
Ourapteryx sambucata (Swallow-tail), 198.
Panagra petraria (Brown Silver-line), 199.

Lepidoptera—Geometrina :—

- Pelurga comitata* (Dark Spinach), 329.
Pericallia syringaria (Lilac Beauty), 205.
Phibalapteryx lapidata (Slender-striped Rufous), 330.
Phibalapteryx lignata (Oblique Carpet), 329.
Phigalia pilosaria (Pale Bridled Beauty), 207.
Rumia cratægata (Brimstone Moth), 198.
Scodiona belgiaria (Grey Scalloped Bar), 200.
Scotosia certata (Scarce Tissue), 329.
Scotosia dubitata (The Tissue), 329.
Selenia illunaria (*bilunaria*) (Early Thorn), 204.
Selenia illustraria (Purple Thorn), 204.
Selenia lunaria (Lunar Thorn), 204.
Strenia clathrata (Latticed Heath), 199.
Tanagra chærophyllata (The Sweep), 344.
Tephrosia bistortata, Goeze (The Engrailed of Newman), 210.
Tephrosia crepuscularia, Hüb. (The Small Engrailed of Newman), 209.
Tephrosia punctularia (Grey Birch), 211.
Tephrosia. See Barrett, Harrison, Robson.
Thera firmata (Pine-Carpet), 330.
Thera juniperata (Juniper-Carpet), 333.
Thera obeliscata, Hb. (Shaded Broad-bar), 330.
Thera simulata (Chestnut-coloured Carpet), 332.
Thera variata, Schiff. (Grey Pine-Carpet), 331.
Timandra imitaria (Small Blood-vein), 219.
Venusia cambricaria (Welsh Wave), 227.
 PYRALIDINA. Moths. (See Leech.)
Acentropus niveus, 348.
Aglossa pinguinalis, 348.

Lepidoptera—Pyralidina :—

- Botys crocealis*, 346.
Botys ferrugalis, 347.
Botys forficalis, 347.
Botys fuscalis, 346.
Botys hyalinalis, 346.
Botys lutealis, 347.
Botys olivialis, 347.
Botys pandalis, 346.
Botys prunalis, 347.
Botys terrealis, 346.
Cledeobia angustalis, 348.
Hydrocampa nymphaealis, 348.
Hydrocampa stagnalis, 348.
Lemiodos pulveralis, 347.
Nomophila hybridella (= *noctuella*), 348.
Pyrallis costalis, 348.
Pyrallis farinalis, 348.
Pyrausta cespitalis, 345.
Pyrausta cingulalis, 346.
Pyrausta octomaculalis, 346.
Pyrausta ostrinalis, 345.
Pyrausta punicealis (= *aurata*), 345.
Pyrausta purpuralis, 345.
Scoparia ambigualis, 349.
Scoparia angustea, 350.
Scoparia atomalis, 349.
Scoparia basistrigalis, 349.
Scoparia cembrae, 349.
Scoparia cratægella, 350.
Scoparia dubitalis, 349.
Scoparia lineola, 350.
Scoparia mercurella, 350.
Scoparia murana, 349.
Scoparia pallida, 350.
Scoparia truncicolella, 350.
Scoparia ulmella, 349.
Spilodes palealis, 347.
Spilodes sticticalis, 347.
Spilodes urticalis (= *urticata*), 347.
Spilodes verticalis (= *ruralis*), 347.

PTEROPHORIDÆ. Moths. (See Leech.)

- Achroia grisella* (= *Achræa alvearia*, Fb.), 358.
Acipitilus galactodactylus, 352.
Acipitilus pentadactylus, 352.
Acipitilus tetradactylus, 352.
Acrobasis tumidella, 354.
Amblyptilus acanthodactylus, 351.

Lepidoptera—Pterophoridae :—

- Amblyptilus punctidactylus*, 351.
Anerastia lotella, 355.
Chilo phragmitellus, 357.
Crambus contaminellus, 357.
Crambus culmellus, 357.
Crambus dumetellus, 355.
Crambus falsellus, 355.
Crambus furcatellus, 356.
Crambus geniculatus, 357.
Crambus hamellus, 355.
Crambus hortuellus, 357.
Crambus inquinatellus, 357.
Crambus margaritellus, 356.
Crambus pascuellus, 356.
Crambus perlellus, 356.
Crambus pinetellus, 356.
Crambus pratellus, 355.
Crambus selasellus, 357.
Crambus tristellus, 357.
Crambus uliginosellus, 356.
Crambus verellus, 355.
Dioryctri adacuriella (= *abietella*), 352.
Dioryctri palumbella, 353.
Ephestia elutella, 355.
Ephestia ficulella, 355.
Galleria sociella, 358.
Gymnancyla canella, 354.
Homæosoma binævella, 354.
Homæosoma cretaceella, 354.
Homæosoma nimbella, 354.
Hypochalcia ahenella, 353.
Leioptilus microdactylus, 352.
Leioptilus osteodactylus, 352.
Leioptilus tephrodactylus, 352.
Mimæsiptilus bipunctidactylus, 351.
Mimæsiptilus pterodactylus, 351.
Orneodes polydactyla (= *hexadactyla*), 352.
Oxyptilus hieracii, 351.
Pempelia dilutella (= *Phycis adornatella*, Tr., and *subornatella*, Dup.), 353.
Platyptilus gonodactylus, 351.
Platyptilus isodactylus, 351.
Platyptilus ochrodactylus, 350.
Plodia interpunctella, 355.
Pterophorus monodactylus, 352.
Rhodophæa advenella, 354.
Salebria betule, 353.
Salebria fusca, 353.
Schænobius mucronellus, 357.

- Library transferred to 4 Silver Street, Berwick-on-Tweed, 265.
- Limond, Rev. W. G., elected, 121.
- Lodge, Sir Oliver, and Science, 8.
- Longformacus Curling Club, medal of, returned from New York, 321.
- grave-slab from, 82.
- Lord Wardens of the Marches of England and Scotland, The*, by Howard Pease, 395.
- M'Conachie, Dr, and insect life, 6.
- M'Creath, Mrs J. A., elected, 317.
- M'Whir, Dr, retells story of Halidon Hill, 313.
- Mary, Queen of Scots, visit to Neidpath Castle, 17.
- Marygold-Black Dyke, 369.
- Meetings, reports of :—
- 1926—
- Berwick, 44-50.
- Cheviot, 24, 25.
- Corsbie and Legerwood, 30-33.
- Dunstanburgh, 33-37.
- Edlington, 25-30.
- Oxnam and the Roman Road, 37.
- Stobo and Dawyck, 16-23.
- 1927—
- Berwick, 128-134, Pl. X.
- Bothal, Newminster, and Mitford, 118-121.
- Hume and Smailholm, 14-128.
- Ilderton and Threestoneburn, 111-114.
- Warkworth, 121-124.
- Whitadder, the Upper, 114-118.
- 1928—
- Bass Rock, The, 304, 305.
- Berwick, 312-317.
- Ford and Etal, 308, 309.
- Foul Fords, The, 301-304.
- Loch Skene, 306-308.
- Prendwick, 309-317.
- Members deceased, 1, 46, 130, 314.
- elected, 23, 33, 49, 114, 121, 128, 304, 305, 309, 312, 317.
- list of, 403-413.
- note of, 93, 130.
- Merse weather, half a century of, by J. Hewat Craw, 383-385.
- Meteorological observations in Berwickshire : 1926, 94 ; 1927, 282 ; 1928, 397.
- Middlemas, Mr and Mrs R. J., elected, 304.
- Middleton Hall visited, 112.
- Milburn, Sir Leonard John, Bart., elected, 114.
- Milford, visit to castle and church, 120.
- Morice, Rev. F. D., his summary of classification, nomenclature, and definition of sawflies, 228.
- Morpeth, meeting at, 118.
- Morrison, John, elected, 114.
- Mosses, The, and hepatics of Berwickshire and North Northumberland, by J. B. Duncan, 4, 84-86, 246-247.
- list of hepatics, 86, 247.
- list of mosses, 85, 246.
- Motto of Club, 2-15.
- Muirhead, George, LL.D., F.R.S.E., F.Z.S., F.S.A.(Scot.), death of, 314.
- obituary of, 386-390.
- Neidpath Castle, visit to, 17.
- Neill, John, the story of, 318-322.
- Newbigin, E. R., elected, 304.
- Newminster, Cistercian abbey at, 119.
- Noctuid* (Moths), see *Lepidoptera*.
- Northumberland, History of*, 27.
- Northumberland Yeomanry, The History of the*, by Howard Pease, 395.
- Obituaries :—
- Ferguson, John, 87-93.
- Hodgson, John Crawford, M.A., by Edward Thew, 271-272.
- Inglis, Rev. R. C., 393.
- Muirhead, George, LL.D., by George Bolam, 386-390.
- Pease, Howard, M.A., F.S.A., by R. C. Bosanquet, 393-396.
- Rutherford, Henry, by Sir George Douglas, 390-392.
- Offa's Dyke, 359.
- Oliver, Andrew Pringle, elected, 49.
- Ornithology, reports for 1926, 46-48 ; 1927, 130-131 ; 1928, 314-316.

- "Otterburn, the Tower, Hall and Dene, and the Lordship of Redesdale," paper in *Archæologia Æliana* by Howard Pease, 395.
 Oxnam, church and churchyard of, 40, 41.
 Pate, Mr and Mrs Wm., elected, 304.
 Paterson, James, elected, 128.
 Paton, Rev. Henry, Presidential address on Club motto, 1926, 1-15.
 Pease, Howard, M.A., F.S.A., death of, 314.
 obituary of, 393-396.
 writings by, 395-396.
Peeblesshire, History of, 17.
 Pennymuir, Roman camp at, 42, 43, Pl. V.
 Penshiel, Grange of, 117.
 Piscatology, reports for 1926, 48; 1928, 316.
 Pliny on wonders of insect life, 5.
 Plummer, Major Charles H. Scott, nominated President, 130.
 Presidential address on some aspects of the chase in the Borders, 285-300.
 Plummer, Mrs Scott, elected, 312.
 Police, established by Sir Robert Peel, 107.
 Prendwick, meeting at, 309.
 British camp at, described by J. Hewat Craw, 310.
 Priestlaw, visit to, 117.
Pterophoridaæ (Moths), *see* Lepidoptera.
 Publications relating to district—1926, 48-49; 1927, 132.
Punch, "The Road to Scotland," 109.
Pyralidina (Moths), *see* Lepidoptera.
 Queensberry, Duke of, bought Neidpath Castle in 1686, 17.
 Quixwood Black Dyke, 372.
 Rainfall in Berwickshire, account of: 1926, 95; 1927, 283; 1928, 398.
 Redpath Black Dyke, 373.
 Renwick, Sir George, guides party through Newminster Abbey, 119.
 Rhymer's Tower, Earlston, 33.
 Riddell, W. E., death of, 314.
 Riddell, William Edmesten, elected, 114.
 Ritchie, Mrs Ishbel Juliet, elected, 23.
 Robson, on *Tephrosia*, Lepidoptera, 209.
 Robson, Capt. the Hon. H. B., elected, 49.
 Roman camp at Pennymuir, 42-43, Pl. V.
 fort at Cappuck, 39, Pl. IV.
 occupation of England and Scotland, 38-39 *n*.
 road, Oxnam, 37.
 Roseden, heraldic panel at, 244, 245.
 Royal Anthropological Institute, letter from, 132, 133.
 Rules of the Club, 400-402.
 Rutherford, J., elected, 304.
 Rutherford, Henry, death of, 314.
 obituary of, by Sir George Douglas, 390-392.
 Saddle Rock, Dunstanburgh, Pl. III, 36.
 Sawflies, 228-243.
 Science, field of, 8-14.
 Scott, Hepburne-, the Hon. Walter T., elected, 23.
 Scott, Sir Walter, and Waldie library, 51.
 Scrymgeour, Rev. J. T., elected, 304.
 Secretary, retirement of Mr Craw, 133; appointment of Miss Mary Isabel Hope, 265.
 Shaw, Rev. Archibald, elected, 23.
 Short, Mrs Eva Doxford, elected, 114.
 Simpson, Russel, death of, 314.
 Smail, James, Presidential address, 1899, on birds, 6.
 Smailholm, visit to church and tower, 127, 128.
 Spencerian theory, 10.
 Steuart, Colonel, 15.
 Stevenson, Mr Andrew, institution of, to kirk of Dunbar, 68.
 Stewart, Miss Emily Jessie, elected, 23.
 Stewart, John William, elected, 23.
 Stobo Castle, 20, 21.
 church, 18-20.

- Stokoe, Edward, elected, 114.
 Swinton, effigy at, 82, 83, Pl. IX.
 Swinton, Rev. A. E., meteorological observations in Berwickshire: 1926, 94; 1927, 282; 1928, 397.
 Swinton, Miss Katherine Maud, elected, 23.
 Swinton, Miss Mary Edith, elected, 23.
 Tait, David W. B., death of, 1, 46.
 Tait, James, on Boon Black Dyke, 364, 365.
 Tennyson quoted, 14.
 Thales and origin of life, 10.
 Thew, Edward, obituary of J. C. Hodgson by, 271-272.
 Thin, John, death of, 314.
 Thompson, Capt. Collingwood James, A.F.C., elected, 23.
 Thomson, Mrs A. D., elected, 304.
 Three hundred years ago, 396.
 Threestoneburn, stone circle at, 112, 113 (fig.).
 Travellers' treasures, advice for owners, 133.
 Treasurer's statement: 1926, 96; 1927, 284; 1928, 399.
 Trevelyan, G. M., *Recreations of a Historian*, 110.
 Turnbull, George G., death of, 314.
 Turnbull, Mrs Jane D., elected, 23.
 Tweeddale, 1st Earl, 17.
 Two hundred years ago, 15, 385.
 Veitch, David, death of, 130.
Victorian Historical Magazine, *The*, pioneer's number, 322.
 Waddell, James A., death of, 314.
 Waldie, Miss Jane, Journal of, 56-58.
 Waldies, the, and Border library, 51-67.
 Walker, James Scott Elliot, elected, 49.
 Warkworth, visit to castle and church, 122, 123.
 Warnoch, Rev. Wm., elected, 304.
 Waterloo, battle of, Miss Jane Waldie's Journal, 56-58.
 Webb, Charles, elected, 305.
 Whitadder, the Upper, visit to, 114-118.
 White, Adam, elected Associate member, 304.
 Whyte, Mr., and appearance of Wryneck, 130.
 Wodrow's *Analecta*, quotations from, 15, 385.
 Wylie, John, death of, 1, 46.
 Yeveering, monolith at, 30.



